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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	MAY 01	New CAS web site launched
NEWS 3	MAY 08	CA/CAplus Indian patent publication number format defined
NEWS 4	MAY 14	RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS 5	MAY 21	BIOSIS reloaded and enhanced with archival data
NEWS 6	MAY 21	TOXCENTER enhanced with BIOSIS reload
NEWS 7	MAY 21	CA/CAplus enhanced with additional kind codes for German patents
NEWS 8	MAY 22	CA/CAplus enhanced with IPC reclassification in Japanese patents
NEWS 9	JUN 27	CA/CAplus enhanced with pre-1967 CAS Registry Numbers
NEWS 10	JUN 29	STN Viewer now available
NEWS 11	JUN 29	STN Express, Version 8.2, now available
NEWS 12	JUL 02	LEMBASE coverage updated
NEWS 13	JUL 02	LMEDLINE coverage updated
NEWS 14	JUL 02	SCISEARCH enhanced with complete author names
NEWS 15	JUL 02	CHEMCATS accession numbers revised
NEWS 16	JUL 02	CA/CAplus enhanced with utility model patents from China
NEWS 17	JUL 16	CAplus enhanced with French and German abstracts
NEWS 18	JUL 18	CA/CAplus patent coverage enhanced
NEWS 19	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 20	JUL 30	USGENE now available on STN
NEWS 21	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS 22	AUG 06	BEILSTEIN updated with new compounds
NEWS 23	AUG 06	FSTA enhanced with new thesaurus edition
NEWS 24	AUG 13	CA/CAplus enhanced with additional kind codes for granted patents
NEWS 25	AUG 20	CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 26	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS 27	AUG 27	USPATOLD now available on STN
NEWS 28	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data

NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that

specific topic.

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* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 14:54:24 ON 28 AUG 2007

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 14:54:29 ON 28 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 AUG 2007 HIGHEST RN 945649-99-0
DICTIONARY FILE UPDATES: 27 AUG 2007 HIGHEST RN 945649-99-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

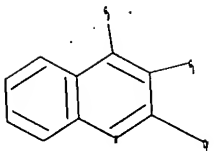
TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

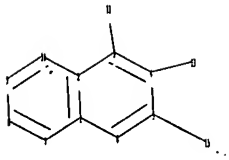
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\0519197.str





chain nodes :
11 15
ring nodes :
1 2 3 4 5 6 7 8 9 10
ring/chain nodes :
13
chain bonds :
3-11 4-13 5-15
ring bonds :
1-2 1-6 1-7 2-3 2-10 3-4 4-5 5-6 7-8 8-9 9-10
exact/norm bonds :
3-11 4-13 5-15
normalized bonds :
1-2 1-6 1-7 2-3 2-10 3-4 4-5 5-6 7-8 8-9 9-10

G1:C,S,N

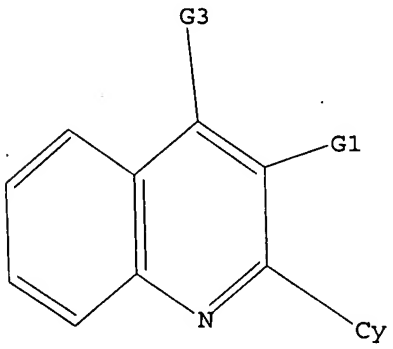
G2:X,C,H,O

G3:C,N

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:CLASS 13:CLASS 15:Atom

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 C,S,N

G2 X,C,H,O

G3 C,N

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sam
SAMPLE SEARCH INITIATED 14:54:50 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 5819 TO ITERATE

34.4% PROCESSED 2000 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 111806 TO 120954
PROJECTED ANSWERS: 8233 TO 10853

L2 50 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 14:54:54 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 117018 TO ITERATE

100.0% PROCESSED 117018 ITERATIONS 9515 ANSWERS
SEARCH TIME: 00.00.02

L3 9515 SEA SSS FUL L1

=> file ca
COST IN U.S. DOLLARS SINCE FILE TOTAL

	ENTRY	SESSION
FULL ESTIMATED COST	172.10	172.31

FILE 'CA' ENTERED AT 14:54:58 ON 28 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 23 Aug 2007 VOL 147 ISS 10
FILE LAST UPDATED: 23 Aug 2007 (20070823/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s l3
L4          600 L3

=> s pde or phosphodiesterase?
           5244 PDE
          27414 PHOSPHODIESTERASE?
L5        28643 PDE OR PHOSPHODIESTERASE?

=> s l4 and l5
L6            6 L4 AND L5

=> d ibib abs fhitstr 1-6
```

L6 ANSWER 1 OF 6 CA COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 147:95523 CA

TITLE: PDE-10A inhibitors as insulin secretagogues

AUTHOR(S): Cantin, Louis-David; Magnuson, Steven; Gunn, David; Barucci, Nicole; Breuhaus, Marina; Bullock, William H.; Burke, Jennifer; Claus, Thomas H.; Daly, Michelle; DeCarr, Lynn; Gore-Willse, Ann; Hoover-Litty, Helana; Kumarasinghe, Ellalahewage S.; Li, Yaxin; Liang, Sidney X.; Livingston, James N.; Lowinger, Timothy; MacDougall, Margit; Ogutu, Herbert O.; Olague, Alan; Ott-Morgan, Ronda; Schoenleber, Robert W.; Tersteegen, Adrian; Wickens, Philip; Zhang, Zhonghua; Zhu, Jian; Zhu, Lei; Sweet, Laurel J.

CORPORATE SOURCE: Department of Chemistry Research, Bayer Pharmaceuticals Corporation, West Haven, CT, 06516, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2007), 17(10), 2869-2873
CODEN: BMCLE8; ISSN: 0960-894X

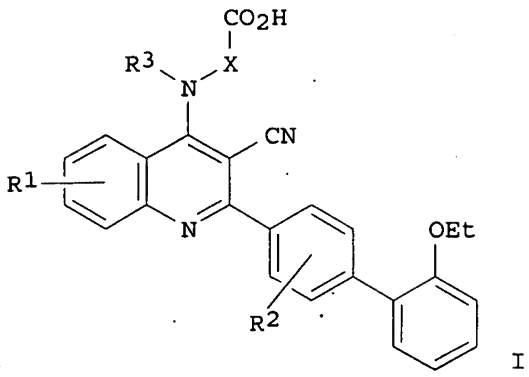
PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 147:95523

GI



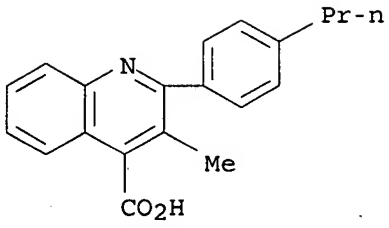
I

AB Modulation of cAMP levels has been linked to insulin secretion in preclin. animal models and in humans. The high expression of PDE-10A in pancreatic islets suggested that inhibition of this enzyme may provide the necessary modulation to elicit increased insulin secretion. Using an HTS approach, quinoline-based PDE-10A inhibitors I [R1 = H, 6-F, 6-Cl, 6-MeO, 8-Me, 5,6-F2, etc.; R2 = 2-F, 3-F, 2-Me, 3-Me; R3 = H, Me, Et, Ph; X = CH2, (CH2)3, (R)-CHMe, etc.] were identified as insulin secretagogues in vitro. Optimized compds. were evaluated in vivo where improvements in glucose tolerance and increases in insulin secretion were measured.

IT 901555-88-2
RL: PAC (Pharmacological activity); BIOL (Biological study)
(preparation and biol. evaluation of amino acid-functionalized (biaryl)(cyano)quinolines as PDE-10A inhibitors and insulin secretagogues)

RN 901555-88-2 CA

CN 4-Quinolinecarboxylic acid, 3-methyl-2-(4-propylphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 6 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 145:290485 CA
TITLE: Marker genes to predict the sensitivity of tumor cells to cytotoxic agents in the selection of chemotherapies
INVENTOR(S): Sadee, Wolfgang; Huang, Ying
PATENT ASSIGNEE(S): The Ohio State University Research Foundation, USA
SOURCE: PCT Int. Appl., 98pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006091969	A2	20060831	WO 2006-US7045	20060227

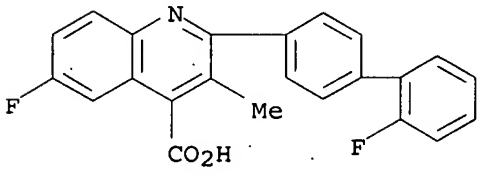
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2005-656195P P 20050225

AB Marker genes that can be used to predict the sensitivity of a tumor to cytotoxic agents are identified. The levels of expression of these genes correlate with the degree of resistance or sensitivity of the tumor to chemotherapeutics. The genes associated with resistance and sensitivity include those for proteins associated with drug uptake and export. Probes and microarrays for the determining the levels of expression of these genes are described. The levels of expression of 343 genes were correlated with the resistance of 60 known tumor cell lines to 119 antitumor agents. Accurate prediction of the sensitivity of NCI-60 cells could be obtained from a set of six genes that were neg. correlated with sensitivity and six that were pos. correlated with it.

IT 96187-53-0
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(determination of resistance and sensitivity to; marker genes to predict sensitivity of tumor cells to cytotoxic agents in selection of chemotherapies)

RN 96187-53-0 CA
CN 4-Quinolinecarboxylic acid, 6-fluoro-2-(2'-fluoro[1,1'-biphenyl]-4-yl)-3-methyl- (CA INDEX NAME)



L6 ANSWER 3 OF 6 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 144:350971 CA
TITLE: Preparation of phenyl-substituted quinoline and quinazoline amino acid derivatives for the treatment of diabetes
INVENTOR(S): Cantin, David; Magnuson, Steven; Gunn, David; Bullock, William; Burke, Jennifer; Fu, Wenlang; Kumarasinghe, Ellalahewage Sathyajith; Liang, Sidney X.; Newcom, Jason; Ogutu, Herbert; Olague, Alan; Wang, Ming; Wickens, Philip; Zhang, Zhonghua; Bierer, Donald
PATENT ASSIGNEE(S): Bayer Pharmaceuticals Corporation, USA
SOURCE: PCT Int. Appl., 185 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006034512	A2	20060330	WO 2005-US34867	20050923
WO 2006034512	A3	20060608		

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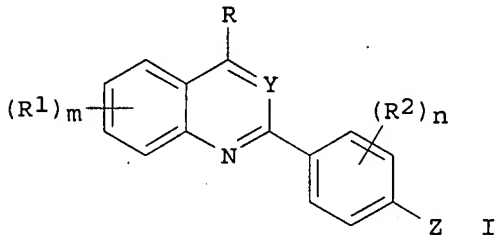
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-612601P P 20040923
OTHER SOURCE(S): MARPAT 144:350971
GI



I

AB The invention relates to 2-phenyl-substituted quinoline and quinazoline compds. I [R is CHR4OCHR4CO2R3, CHR4NR5CO2R3, CHR4-NX-CO2R3, NR5(CR4R4')1-4CO2R3, NR5-X-CO2R3, NX-CO2R3, (CR4R4')0-3CO2R3, CONR5CHR4CO2R3, O(CR4R4')0-3CO2R3 (R3 is H, alkyl, cycloalkyl; R4, R4' are independently H, substituted alkyl, cycloalkyl, alkoxy, cycloalkoxy, haloalkoxy; R5 is H, aryl, heteroaryl, arylalkyl, heteroarylalkyl; X is cycloalkylene and NX is azacycloalkylene); Y is NH or alkyl-, cycloalkyl-, thioalkyl-, halo- or cyanoimino; R1 is H, alkyl, cycloalkyl, alkoxy, cycloalkoxy, thioalkyl, halo, haloalkyl, haloalkoxy, CN, an amino group;

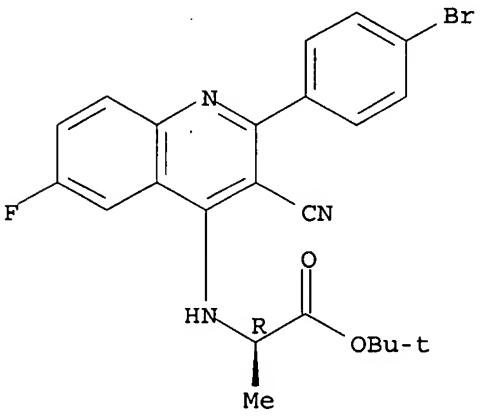
R2 is groups defined for R1 (except CN) or acyl groups; m is 0-3; n is 0-2; Z is H, alkyl, cycloalkyl, CN, etc.], pharmaceutical compns., and methods for treating diabetes and related disorders. Thus, 2-[[3-cyano-2-(2'-ethoxybiphenyl-4-yl)-6-fluoroquinolin-4-yl]amino]-4,4,4-trifluorobutanoic acid was prepared by amination of a haloquinoline derivative and showed IC50 = 2 in the PDE-10 inhibition assay and FOC (fold over control) = 1.9 in the dispersed islet assay.

IT 881311-62-2P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of phenyl-substituted quinoline and quinazoline amino acid derivs. for treatment of diabetes)

RN 881311-62-2 CA

CN D-Alanine, N-[2-(4-bromophenyl)-3-cyano-6-fluoro-4-quinolinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 4 OF 6 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 144:350969 CA
TITLE: Preparation of phenyl-substituted quinoline and quinazoline amino acid derivatives for the treatment of diabetes
INVENTOR(S): Cantin, David; Magnuson, Steven; Gunn, David; Bullock, William; Burke, Jennifer; Fu, Wenlang; Kumarasinghe, Ellalahewage Sathyajith; Liang, Sidney X.; Newcom, Jason; Ogutu, Herbert; Wickens, Philip; Zhang, Zhonghua; Bierer, Donald
PATENT ASSIGNEE(S): Bayer Pharmaceuticals Corporation, USA
SOURCE: PCT Int. Appl., 194 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006034491	A2	20060330	WO 2005-US34367	20050923
WO 2006034491	A3	20060824		

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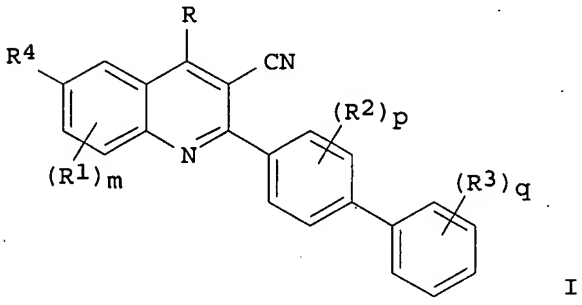
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-612601P P 20040923
OTHER SOURCE(S): MARPAT 144:350969
GI



I

AB The invention relates to 2-phenyl-substituted quinoline and quinazoline compds., pharmaceutical compns., and methods for treating diabetes and related disorders. 2-Biphenyl-4-yl-3-cyanoquinoline derivs. I [R is NR5(CR6R6')nCO2R7 (n is 1-4; R5 is H, aryl, heteroaryl, arylalkyl, heteroarylalkyl; R6, R6' are independently H, substituted alkyl,

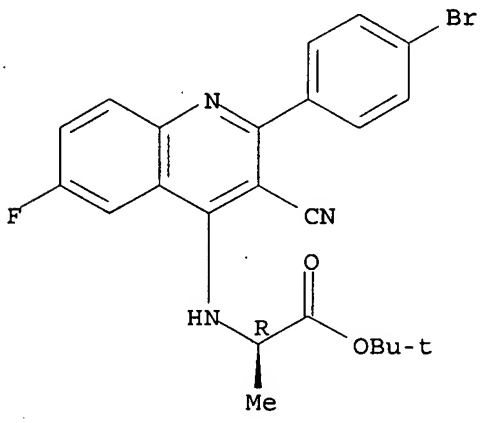
cycloalkyl, alkoxy, cycloalkoxy, haloalkoxy; R7 is H, alkyl, cycloalkyl), NR5-X-CO2R7 or NX-CO2R7, where X is cycloalkylene and NX is azacycloalkylene; R1 is H, alkyl, cycloalkyl, alkoxy, cycloalkoxy, thioalkyl, halo, haloalkyl, haloalkoxy, CN; R2 is groups defined for R1 (except CN), amino or acyl groups; R3 is OH, SH, CHO, halo, CN, NO2, SiMe3, CO2H, a mono- or bicyclic ring, etc.; R4 is halo; m is 0-3; p is 0-2; q is 1-3] are claimed. Thus, 2-[[3-cyano-2-(2'-ethoxybiphenyl-4-yl)-6-fluoroquinolin-4-yl]amino]-4,4,4-trifluorobutanoic acid was prepared by amination of a haloquinoline derivative and showed IC50 = 2 in the PDE -10 inhibition assay and FOC (fold over control) = 1.9 in the dispersed islet assay.

IT 881311-62-2P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of phenyl-substituted quinoline and quinazoline amino acid derivs. for treatment of diabetes)

RN 881311-62-2 CA

CN D-Alanine, N-[2-(4-bromophenyl)-3-cyano-6-fluoro-4-quinolinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

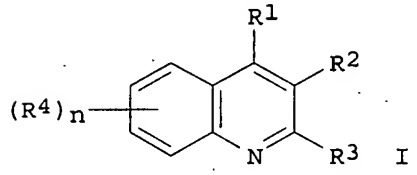
Absolute stereochemistry.



L6 ANSWER 5 OF 6 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 140:77039 CA
TITLE: Preparation of quinoline derivatives as phosphodiesterase 10A inhibitors
INVENTOR(S): Osakada, Naoto; Haruoka, Motoko; Ikeda, Ken; Toki, Shinichiro; Miyaji, Hiromasa; Shimada, Junichi
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan
SOURCE: PCT Int. Appl., 81 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004002484	A1	20040108	WO 2003-JP8079	20030626
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2493854	A1	20040108	CA 2003-2493854	20030626
AU 2003244080	A1	20040119	AU 2003-244080	20030626
EP 1541149	A1	20050615	EP 2003-761814	20030626
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2006111368	A1	20060525	US 2004-519197	20041223
PRIORITY APPLN. INFO.:			JP 2002-185707 A	20020626
			WO 2003-JP8079 W	20030626

OTHER SOURCE(S): MARPAT 140:77039
GI



I

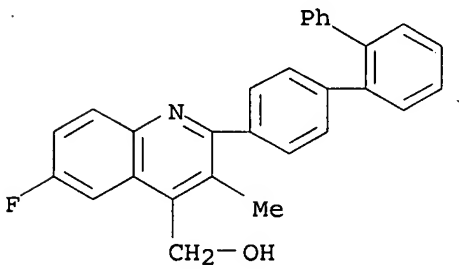
AB Disclosed is a phosphodiesterase 10A inhibitor which contains as an active ingredient a quinoline derivative represented by the following formula (I) or a pharmacol. acceptable salt of the derivative [wherein n = an integer of 1-4; R1 = (un)substituted lower alkyl, -C(:Y)R9, HO, halo, cyano, NH2, mono- or di(lower alkyl)amino; wherein Y = O, S; R9 = H, HO, each (un)substituted lower alkyl, lower alkoxy, aryl, or heterocyclyl, NH2, mono- or di(lower alkyl)amino; R2 = H, NH2, NO2, each (un)substituted lower alkyl or lower alkoxy, S(O)mR12, mono- or di(lower alkyl)amino; R12 = R12 = each (un)substituted lower alkyl or aryl; m = an integer of 0-2; R3 = H, halo, HO, each (un)substituted lower alkyl, cycloalkyl, aryl, or

heterocyclyl; or R2 and R3 together with the carbon atoms to which they are attached form an (un)substituted condensed ring; R4 = H, halo, cyano, NH2, NO2, each (un)substituted lower alkyl, cycloalkyl, or lower alkoxy, C(:Y1)R12a, mono- or di(lower alkyl)amino; Y1 and R12a are groups listed in Y and R9, resp.; when n is ≥2, each R4 is same or different]. The phosphodiesterase 10A inhibitor is useful for the treatment and/or prevention of diseases derived from hyperactivity of phosphodiesterase 10A, in particular dyskinesia. Also disclosed is an antitumor agent containing the compound I or its pharmacol. acceptable salt for the treatment of malignant tumors. Thus, 2-(4-bromophenyl)-6-fluoro-3-methylquinoline-4-carboxylic acid was coupled with 2-biphenylboronic acid in the presence of bis(tri-o-tolylphosphine)palladium(II) dichloride and Et3N in ethanol at 90° for .apprx.2 h under refluxing to give 58% 6-fluoro-3-methyl-2-(1,1':2',1''-terphenyl-4-yl)quinoline-4-carboxylic acid (II). II showed IC50 of 0.9 nmol/L against phosphodiesterase 10A. A tablet, capsule, and injection formulation containing the specific compds. I were described.

IT 641611-58-7P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of quinoline derivs. as phosphodiesterase 10A inhibitors for treatment or prevention of dyskinesia or as antitumor agents)

RN 641611-58-7 CA

CN 4-Quinolinemethanol, 6-fluoro-3-methyl-2-[1,1':2',1''-terphenyl]-4-yl- (9CI) (CA INDEX NAME)



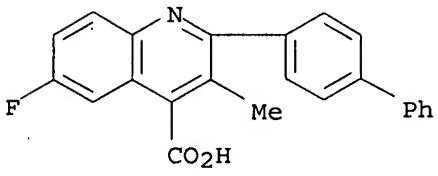
REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 6 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 138:283178 CA
TITLE: Methodology and problems of protein-ligand docking: case study of dihydroorotate dehydrogenase, thymidine kinase, and phosphodiesterase 4
AUTHOR(S): Pospisil, Pavel; Kuoni, Thomas; Scapozza, Leonardo; Folkers, Gerd
CORPORATE SOURCE: Department of Applied Biosciences, Swiss Federal Institute of Technology (ETH) Zurich, Zurich, CH-8057, Switz.
SOURCE: Journal of Receptors and Signal Transduction (2002), 22(1-4), 141-154
CODEN: JRSTCT
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The docking methodol. was applied to three different therapeutically interesting enzymes: human dihydroorotate dehydrogenase (DHODH), Herpes simplex virus type I thymidine kinase (HSV1 TK) and human phosphodiesterase 4 (PDE4). Programs FlexX, AutoDock and DOCK where used. The three targets represent three distinct cases. For DHODH and HSV1 TK, the binding modes of substrate and inhibitors within the active site are known, while the binding orientation of cAMP within PDE4 has been solely hypothesized. Active site of DHODH is mainly hydrophobic and the binding mode of the inhibitor brequinar was used as a template for evaluating the docking strategies. The presence of cofactors revealed to be crucial for the definition of the docking site. The HSV1 TK active site is small and polar and contains crystal water mols. and ATP. Docking of thymidine and aciclovir (ACV) within the active site was analyzed by keeping or removing water mols. It showed the crucial role of water in predicting the binding of pyrimidines and purines. The crystal structure of PDE4 contains magnesium and zinc cations as well as catalytic water mol. but no ligand. Several docking expts. of cAMP and rolipram were performed, and the results showed clear-cut dependence between the ligand orientation and the presence of metals in the active site. All three cases show specific problems of the docking methodol., depending on the character of the active site.

IT 96187-27-8
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(methodol. and problems of protein-ligand docking in the cases of dihydroorotate dehydrogenase, thymidine kinase, and phosphodiesterase 4)

RN 96187-27-8 CA
CN 4-Quinolinecarboxylic acid, 2-[1,1'-biphenyl]-4-yl-6-fluoro-3-methyl- (CA INDEX NAME)



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> d 6 pd
'PD' IS NOT A VALID FORMAT FOR FILE 'CA'

The following are valid formats:

ABS --------- GI and AB
ALL --------- BIB, AB, IND, RE
APPS -------- AI, PRAI
BIB --------- AN, plus Bibliographic Data and PI table (default)
CAN --------- List of CA abstract numbers without answer numbers
CBIB -------- AN, plus Compressed Bibliographic Data
CLASS ------- IPC, NCL, ECLA, FTERM
DALL -------- ALL, delimited (end of each field identified)
DMAX -------- MAX, delimited for post-processing
FAM --------- AN, PI and PRAI in table, plus Patent Family data
FBIB -------- AN, BIB, plus Patent FAM
IND --------- Indexing data
IPC --------- International Patent Classifications
MAX --------- ALL, plus Patent FAM, RE
PATS -------- PI, SO
SAM --------- CC, SX, TI, ST, IT
SCAN -------- CC, SX, TI, ST, IT (random display, no answer numbers;
              SCAN must be entered on the same line as the DISPLAY,
              e.g., D SCAN or DISPLAY SCAN)
STD --------- BIB, CLASS

IABS -------- ABS, indented with text labels
IALL -------- ALL, indented with text labels
IBIB -------- BIB, indented with text labels
IMAX -------- MAX, indented with text labels
ISTD -------- STD, indented with text labels

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

HIT --------- Fields containing hit terms
HITIND ------ IC, ICA, ICI, NCL, CC and index field (ST and IT)
              containing hit terms
HITRN ------- HIT RN and its text modification
HITSTR ------ HIT RN, its text modification, its CA index name, and
              its structure diagram
HITSEQ ------ HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
FHITSTR ----- First HIT RN, its text modification, its CA index name, and
              its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
KWIC -------- Hit term plus 20 words on either side
OCC --------- Number of occurrence of hit term and field in which it occurs

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an arrow prompt (=>).  Examples of formats include: TI; TI,AU; BIB,ST;
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specification.
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L6 ANSWER 6 OF 6 CA COPYRIGHT 2007 ACS on STN

=> d 6 all

L6 ANSWER 6 OF 6 CA COPYRIGHT 2007 ACS on STN
AN 138:283178 CA
ED Entered STN: 01 May 2003
TI Methodology and problems of protein-ligand docking: case study of dihydroorotate dehydrogenase, thymidine kinase, and phosphodiesterase 4
AU Pospisil, Pavel; Kuoni, Thomas; Scapozza, Leonardo; Folkers, Gerd
CS Department of Applied Biosciences, Swiss Federal Institute of Technology (ETH) Zurich, Zurich, CH-8057, Switz.
SO Journal of Receptors and Signal Transduction (2002), 22(1-4), 141-154
CODEN: JRSTCT
PB Marcel Dekker, Inc.
DT Journal
LA English
CC 7-3 (Enzymes)
AB The docking methodol. was applied to three different therapeutically interesting enzymes: human dihydroorotate dehydrogenase (DHODH), Herpes simplex virus type I thymidine kinase (HSV1 TK) and human phosphodiesterase 4 (PDE4). Programs FlexX, AutoDock and DOCK where used. The three targets represent three distinct cases. For DHODH and HSV1 TK, the binding modes of substrate and inhibitors within the active site are known, while the binding orientation of cAMP within PDE4 has been solely hypothesized. Active site of DHODH is mainly hydrophobic and the binding mode of the inhibitor brequinar was used as a template for evaluating the docking strategies. The presence of cofactors revealed to be crucial for the definition of the docking site. The HSV1 TK active site is small and polar and contains crystal water mols. and ATP. Docking of thymidine and aciclovir (ACV) within the active site was analyzed by keeping or removing water mols. It showed the crucial role of water in predicting the binding of pyrimidines and purines. The crystal structure of PDE4 contains magnesium and zinc cations as well as catalytic water mol. but no ligand. Several docking expts. of cAMP and rolipram were performed, and the results showed clear-cut dependence between the ligand orientation and the presence of metals in the active site. All three cases show specific problems of the docking methodol., depending on the character of the active site.
ST dihydroorotate dehydrogenase thymidine kinase phosphodiesterase 4 ligand docking
IT Enzyme functional sites
(active; methodol. and problems of protein-ligand docking in the cases of dihydroorotate dehydrogenase, thymidine kinase, and phosphodiesterase 4)
IT Human
Molecular modeling
Molecular recognition
(methodol. and problems of protein-ligand docking in the cases of dihydroorotate dehydrogenase, thymidine kinase, and phosphodiesterase 4)
IT Ligands
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(methodol. and problems of protein-ligand docking in the cases of dihydroorotate dehydrogenase, thymidine kinase, and phosphodiesterase 4)
IT Conformation
(protein; methodol. and problems of protein-ligand docking in cases of dihydroorotate dehydrogenase, thymidine kinase, and phosphodiesterase 4)
IT 9002-06-6, Thymidine kinase
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL

(Biological study)
(Herpes simplex virus type I; methodol. and problems of protein-ligand docking in the cases of dihydroorotate dehydrogenase, thymidine kinase, and phosphodiesterase 4)

IT 9029-03-2 9036-21-9, Phosphodiesterase 4
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(human; methodol. and problems of protein-ligand docking in the cases of dihydroorotate dehydrogenase, thymidine kinase, and phosphodiesterase 4)

IT 50-89-5, Deoxythymidine, biological studies 59277-89-3, Aciclovir
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(methodol. and problems of protein-ligand docking in cases of dihydroorotate dehydrogenase, thymidine kinase, and phosphodiesterase 4)

IT 60-92-4, CAMP 61413-54-5, Rolipram 75706-12-6, Leflunomide 96187-27-8 96187-53-0, Brequinar 108605-62-5
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(methodol. and problems of protein-ligand docking in the cases of dihydroorotate dehydrogenase, thymidine kinase, and phosphodiesterase 4)

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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     FILE 'REGISTRY' ENTERED AT 14:54:29 ON 28 AUG 2007
L1             STRUCTURE UPLOADED
L2          50 S L1 SAM
L3        9515 S L1 FULL

     FILE 'CA' ENTERED AT 14:54:58 ON 28 AUG 2007
L4          600 S L3
L5        28643 S PDE OR PHOSPHODIESTERASE?
L6            6 S L4 AND L5

     FILE 'STNGUIDE' ENTERED AT 14:57:08 ON 28 AUG 2007

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=> LOG Y

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CA SUBSCRIBER PRICE                                         0.00      -5.11

STN INTERNATIONAL LOGOFF AT 14:59:04 ON 28 AUG 2007
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NEWS 3	MAY 08	CA/CAplus Indian patent publication number format defined
NEWS 4	MAY 14	RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS 5	MAY 21	BIOSIS reloaded and enhanced with archival data
NEWS 6	MAY 21	TOXCENTER enhanced with BIOSIS reload
NEWS 7	MAY 21	CA/CAplus enhanced with additional kind codes for German patents
NEWS 8	MAY 22	CA/CAplus enhanced with IPC reclassification in Japanese patents
NEWS 9	JUN 27	CA/CAplus enhanced with pre-1967 CAS Registry Numbers
NEWS 10	JUN 29	STN Viewer now available
NEWS 11	JUN 29	STN Express, Version 8.2, now available
NEWS 12	JUL 02	LEMBASE coverage updated
NEWS 13	JUL 02	LMEDLINE coverage updated
NEWS 14	JUL 02	SCISEARCH enhanced with complete author names
NEWS 15	JUL 02	CHEMCATS accession numbers revised
NEWS 16	JUL 02	CA/CAplus enhanced with utility model patents from China
NEWS 17	JUL 16	CAplus enhanced with French and German abstracts
NEWS 18	JUL 18	CA/CAplus patent coverage enhanced
NEWS 19	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 20	JUL 30	USGENE now available on STN
NEWS 21	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS 22	AUG 06	BEILSTEIN updated with new compounds
NEWS 23	AUG 06	FSTA enhanced with new thesaurus edition
NEWS 24	AUG 13	CA/CAplus enhanced with additional kind codes for granted patents
NEWS 25	AUG 20	CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 26	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
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NEWS 28	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data

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CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
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FILE 'HOME' ENTERED AT 12:21:49 ON 28 AUG 2007

=> file ca

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FILE COVERS 1907 - 23 Aug 2007 VOL 147 ISS 10
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```
=> s pde10a?
L1          56 PDE10A?

=> s pdexa
L2           0 PDEXA

=> s pde and xa
          5244 PDE
          9508 XA
L3          10 PDE AND XA

=> s pde and 10a
          5244 PDE
          7896 10A
L4          19 PDE AND 10A

=> s pde and 10?
TERM '10?' EXCEEDED TRUNCATION LIMITS - SEARCH ENDED
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You have entered a truncated stem which occurs in too many terms. Make the stem longer and try again. For example, if your original term was 'degr?' to search for variations and the abbreviation for 'degradation', you could replace it with the expression '(degrdn OR degrad?)'. If your search term was numeric, e.g., 'C>5', reduce the size of the range.

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=> d his

     (FILE 'HOME' ENTERED AT 12:21:49 ON 28 AUG 2007)

    FILE 'CA' ENTERED AT 12:22:17 ON 28 AUG 2007
L1            56 S PDE10A?
L2             0 S PDEXA
L3            10 S PDE AND XA
L4            19 S PDE AND 10A

=> s pde inhibit?
          5244 PDE
       1908140 INHIBIT?
L5        1249 PDE INHIBIT?
                (PDE(W)INHIBIT?)

=> s quinoline
L6       50216 QUINOLINE

=> s l1 or l3 or l4 or l5
L7        1314 L1 OR L3 OR L4 OR L5

=> s l5 and l7
L8        1249 L5 AND L7

=> file reg
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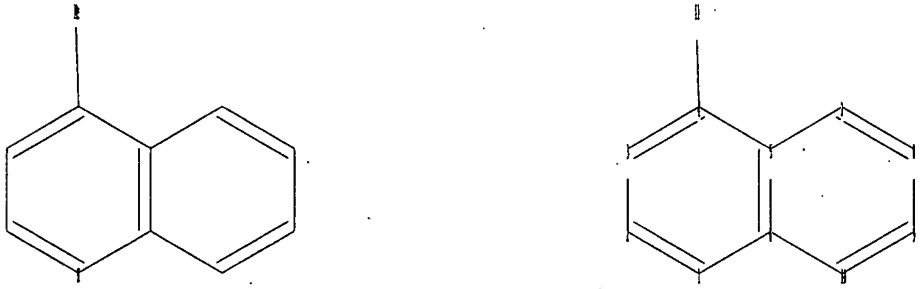

chain nodes :
11
ring nodes :
1 2 3 4 5 6 7 8 9 10
chain bonds :
4-11
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10
exact bonds :
4-11
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10
isolated ring systems :
containing 1 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:CLASS

L9 STRUCTURE UPLOADED

=> s l9
SAMPLE SEARCH INITIATED 12:24:19 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 14609 TO ITERATE

13.7% PROCESSED 2000 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 284940 TO 299420
PROJECTED ANSWERS: 16171 TO 19767

L10 50 SEA SSS SAM L9

=> s l9 full
FULL SEARCH INITIATED 12:24:23 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 293641 TO ITERATE

100.0% PROCESSED 293641 ITERATIONS 16740 ANSWERS
SEARCH TIME: 00.00.02

L11 16740 SEA SSS FUL L9

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=> s l11
L12 4938 L11

=> d his

(FILE 'HOME' ENTERED AT 12:21:49 ON 28 AUG 2007)

FILE 'CA' ENTERED AT 12:22:17 ON 28 AUG 2007
L1 56 S PDE10A?
L2 0 S PDEXA
L3 10 S PDE AND XA
L4 19 S PDE AND 10A
L5 1249 S PDE INHIBIT?
L6 50216 S QUINOLINE
L7 1314 S L1 OR L3 OR L4 OR L5
L8 1249 S L5 AND L7

FILE 'REGISTRY' ENTERED AT 12:24:07 ON 28 AUG 2007
L9 STRUCTURE UPLOADED
L10 50 S L9
L11 16740 S L9 FULL

FILE 'CA' ENTERED AT 12:24:27 ON 28 AUG 2007
L12 4938 S L11

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L13             0 L7 AND L12

=> s l12 and pde
          5244 PDE
L14             2 L12 AND PDE

=> d ibib abs fhitstr 1-2
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L14 ANSWER 1 OF 2 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 135:303908 CA
TITLE: 8-(Quinolinylmethyl)xanthine and 8-(isoquinolinylmethyl)xanthine derivatives as PDE 5 inhibitors, useful for treatment of erectile dysfunction
INVENTOR(S): Bhalay, Gurdip; Collingwood, Stephen Paul; Fairhurst, Robin Alec; Gomez, Sylvie Felicite; Naef, Reto; Sandham, David Andrew
PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis-Erfindungen Verwaltungsgesellschaft m.b.H.
SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001077110	A1	20011018	WO 2001-EP3909	20010405
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2403514	A1	20011018	CA 2001-2403514	20010405
AU 200173921	A	20011023	AU 2001-73921	20010405
EP 1268480	A1	20030102	EP 2001-940294	20010405
EP 1268480	B1	20031105		
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BR 2001009855	A	20030603	BR 2001-9855	20010405
HU 200300565	A2	20030728	HU 2003-565	20010405
JP 2003530398	T	20031014	JP 2001-575583	20010405
JP 3869725	B2	20070117		
AT 253576	T	20031115	AT 2001-940294	20010405
PT 1268480	T	20040331	PT 2001-940294	20010405
NZ 521361	A	20040528	NZ 2001-521361	20010405
ES 2210169	T3	20040701	ES 2001-1940294	20010405
RU 2269529	C2	20060210	RU 2002-129557	20010405
NO 2002004741	A	20021002	NO 2002-4741	20021002
US 2003171384	A1	20030911	US 2002-240481	20021002
ZA 2002007956	A	20030716	ZA 2002-7956	20021003
IN 2002CN01618	A	20050128	IN 2002-CN1618	20021004
MX 2002PA09903	A	20030327	MX 2002-PA9903	20021007
US 2004038996	A1	20040226	US 2003-644328	20030820
US 6919337	B2	20050719		
US 2005054660	A1	20050310	US 2004-937639	20040909
US 7019136	B2	20060328		
US 2006173181	A1	20060803	US 2005-274030	20051115
US 2006106214	A1	20060518	US 2006-329889	20060111

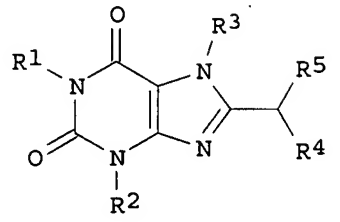
PRIORITY APPLN. INFO.:

GB 2000-8694	A	20000407
WO 2001-EP3909	W	20010405
US 2002-240481	B1	20021002
US 2003-644328	A3	20030820

US 2004-937639 A1 20040909

OTHER SOURCE(S): MARPAT 135:303908

GI



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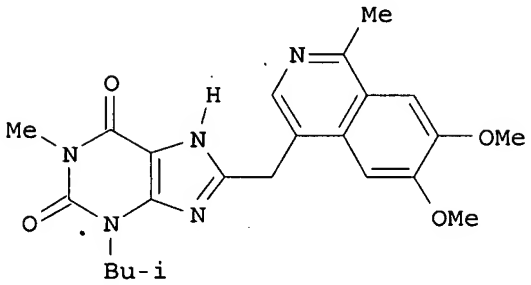
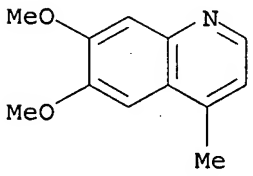


II

AB Compds. of formula I, in free or salt form, are disclosed [where R1 = H or alkyl (un)substituted by OH, alkoxy, or alkylthio; R2 = H, alkyl, hydroxyalkyl, alkylcarbonyloxyalkyl, alkoxyalkyl, alkylthioalkyl, alkenyl, cycloalkylalkyl, heterocyclylalkyl, aralkyl [aryl ring optionally fused to 5-membered heterocyclic group or substituted by alkoxy, (di)(alkyl)amino, acylamino, halo, OH, aminosulfonyl, alkylaminosulfonyl, dialkylaminosulfonyl, alkylsulfonylamino or dialkylaminosulfonylamino]; R3 = H or alkyl optionally substituted by OH, alkoxy, or alkylthio; R4 = H or alkyl; R5 = (un)substituted quinolinyl, isoquinolinyl, or oxodihydroisoquinolinyl, optionally fused to 5-membered heterocyclic group [substituents = halo, cyano, OH, alkyl, hydroxyalkyl, alkoxyalkyl, alkylthioalkyl, alkoxy, alkylthio, alkenyl, alkoxycarbonyl, alkynyl, carboxyl, acyl, N(R6)R7, (un)substituted aryl (substituents = halo or alkoxy), or 5- or 6-membered heteroaryl attached through ring C]; R6, R7 = H or alkyl (optionally substituted by OH or alkoxy); or 1 of R6 and R7 = H, the other = acyl; or NR6R7 = 5- or 6- membered heterocyclyl]. I are inhibitors of cGMP phosphodiesterases (PDEs), and in particular are selective inhibitors of PDE5. They exhibit good selectivity for PDE5 over PDE1 and PDE6, indicating a low side-effect profile. I are of particular interest for use in the treatment of sexual dysfunction, especially male erectile dysfunction. Examples include 87 product syntheses and 59 intermediate prepns. Ten compds. are particularly preferred, and these are specifically claimed. For instance, cyclocondensation of 5,6-diamino-1-isobutyl-3-methyl-1H-pyrimidine-2,4-dione with (6,7-dimethoxy-1-methylisoquinolin-4-yl)acetic acid (prepns. given), using EDC in aqueous MeOH, gave the preferred title compound II. In an in vitro assay for PDE5 inhibition, I gave IC50 values of 0.0005 μM to 10 μM, e.g., 0.007 μM for II.

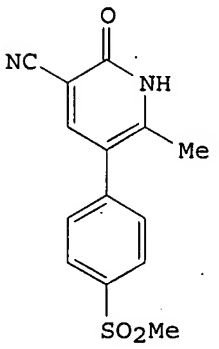
IT 105908-35-8, 6,7-Dimethoxy-4-methylquinoline
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursor; preparation of quinoline-xanthine and isoquinoline-xanthine derivs. as PDE 5 inhibitors)

RN 105908-35-8 CA
CN Quinoline, 6,7-dimethoxy-4-methyl- (9CI) (CA INDEX NAME)



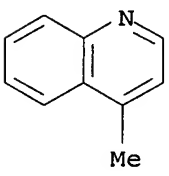
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 2 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 117:251207 CA
TITLE: New cardiotonic agents related to amrinone: synthesis of 1,2-dihydro-5-arylpyridin-2-ones
AUTHOR(S): Gomez-Parra, V.; Del Carmen Gomez, M.; Sanchez, Felix; Stefani, V.
CORPORATE SOURCE: Inst. Quim. Org., Madrid, E-28006, Spain
SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1992), 325(8), 483-90
CODEN: ARPMAS; ISSN: 0365-6233
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 117:251207
GI



I

AB For development of new cardiotonic agents a series of 5-aryl-3,4-dihydropyridin-2(1H)-ones, related to amrinone were prepared from methylquinolines, 2-arylacetic acid or 3-arylethanones by direct aminomethylenation and subsequent condensation-cyclization with malonamide and cyanacetamide in classic basic media or phase-transfer catalysis, in good to excellent yields. Preliminary pharmacol. assays showed that these compds., especially 6-methyl-5-[(4-methylsulfonyl)phenyl]-2-oxo-1,2-dihydropyridine-3-carbonitrile (I) has a remarkable cardiotonic effect and present a selective inhibition of PDE-III/PDE-I isolated from cat heart.
IT 491-35-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(Vilsmeier reaction of)
RN 491-35-0 CA
CN Quinoline, 4-methyl- (CA INDEX NAME)



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CA SUBSCRIBER PRICE                                    -1.46      -1.46

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USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Aug 24, 2007 (20070824/UP).

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---Logging off of STN---


=>
Executing the logoff script...


=> LOG Y

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CA SUBSCRIBER PRICE                                     0.00      -1.46

STN INTERNATIONAL LOGOFF AT 12:35:10 ON 28 AUG 2007
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Connecting via Winsock to STN

Welcome to STN International! Enter x:x

* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * * *

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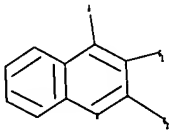

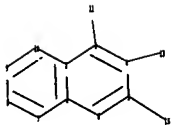

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ring nodes :
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ring/chain nodes :
13 15
chain bonds :
3-11
ring/chain bonds :

4-13 5-15
ring bonds :
1-2 1-6 1-7 2-3 2-10 3-4 4-5 5-6 7-8 8-9 9-10
exact/norm bonds :
3-11 4-13 5-15
normalized bonds :
1-2 1-6 1-7 2-3 2-10 3-4 4-5 5-6 7-8 8-9 9-10

G1:C,H,S,N

G2:X,C,H,O

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:CLASS 13:CLASS 15:CLASS

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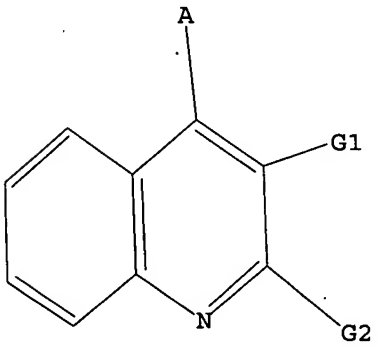

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G2 X,C,H,O

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=> file ca

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L5 56103 L4 AND PY<2002

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L7         109 L6 AND L5

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L7 ANSWER 1 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 141:243774 CA
TITLE: Solid phase synthesis of amine-derivatized nucleosides
and oligodeoxyribonucleotide duplexes
INVENTOR(S): Cook, Phillip Dan; Manoharan, Muthiah; Guinosso, Charles J.
PATENT ASSIGNEE(S): Isis Pharmaceuticals, Inc., USA
SOURCE: U.S., 25 pp., Cont.-in-part of Appl. No. PCT/US92/09196.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 324
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6783931	B1	20040831	US 1993-117363	19930903
WO 9110671	A1	19910725	WO 1991-US243	19910111
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RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE
EP 1418179 A2 20040512 EP 2003-78862 19910111
EP 1418179 A3 20060308
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CA 2089376 A1 19920214 CA 1991-2089376 19910812
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EP 1443051 A2 20040804 EP 2004-76246 19910812
EP 1443051 A3 20050817
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AT 318273 T 20060315 AT 1991-915355 19910812
ES 2259177 T3 20060916 ES 1991-915355 19910812
WO 9307883 A1 19930429 WO 1992-US9196 19921023
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EP 1331011 A2 20030730 EP 2003-76286 19921023
EP 1331011 A3 20031217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, IE
CA 2170869 A1 19950309 CA 1994-2170869 19940902
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WO 9506659 A1 19950309 WO 1994-US10131 19940902
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AU 9477233 A 19950322 AU 1994-77233 19940902
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L7 ANSWER 1 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

AU 679566	B2	19970703		
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EP 728139 B1 20030813
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JP 09500388 T 19970114 JP 1995-508326 19940902
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JP 3484197 B2 20040106
AT 247128 T 20030815 AT 1994-928048 19940902
US 6900297 B1 20050531 US 1995-464953 19950605
JP 08098700 A 19960416 JP 1995-175173 19950711
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JP 3585583 B2 20041104
AU 9726244 A 19971106 AU 1997-26244 19970624
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AU 713740 B2 19991209
US 6528631 B1 20030304 US 1998-98166 19980616
US 6232463 B1 20010515 US 1998-128508 19980804
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US 6653458 B1 20031125 US 1999-435806 19991108
US 6753423 B1 20040622 US 2000-546596 20000410
US 2004142899 A1 20040722 US 2004-780439 20040217
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US 1990-566977 B2 19900813
WO 1991-US243 A2 19910111
US 1991-782374 B2 19911024
WO 1992-US9196 A2 19921023
US 1990-567286 B2 19900814
EP 1991-903066 A3 19910111
EP 1991-915355 A3 19910812
US 1992-854634 A2 19920701
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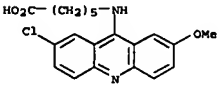
EP 1992-923139 A3 19921023
US 1993-7997 A2 19930121
AU 1993-38025 A3 19930225
US 1993-63167 A2 19930517
US 1993-117363 A 19930903
WO 1994-US10131 W 19940902

L7 ANSWER 1 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

US 1994-344155	A2	19941123
US 1995-464953	A2	19950605
US 1996-602862	A2	19960228
US 1996-731299	A2	19961004
US 1997-928823	A1	19970912
US 1997-948151	A1	19971009
US 1998-115043	B2	19980714
US 2000-546596	A1	20000410

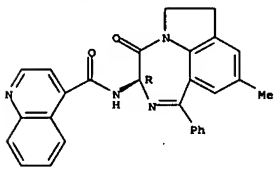
AB Nucleosides and oligodeoxyribonucleotides functionalized to include alkylamino functionality, and derivs. thereof, are claimed. In certain embodiments, the compds. of the invention further include steroids, reporter mols., reporter enzymes, lipophilic mols., peptides or proteins attached to the nucleosides through the alkylamino group. Many 2'- or 3'-O-alkylamino nucleotides and cholesterol, fluorescein, etc. derivs. of these nucleotides were prepared and incorporated into oligonucleotides. The effects of the modifications on Tm of duplexes containing these modified oligonucleotides were determined
IT 748812-06-8P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(solid phase synthesis of amine-derivatized nucleosides and oligodeoxyribonucleotide duplexes)
RN 748812-06-8 CA
CN Hexanoic acid, 6-[(2-chloro-7-methoxy-9-acridinyl)amino]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 136:334733 CA
TITLE: CoMFA and CoMSIA 3D-quantitative structure-activity relationship model on benzodiazepine derivatives, inhibitors of phosphodiesterase IV
AUTHOR(S): Ducrot, Pierre; Andrianjara, Charles R.; Wrigglesworth, Roger
CORPORATE SOURCE: Pfizer Global Research and Development, Fresnes Laboratories, Fresnes, 94265, Fr.
SOURCE: Journal of Computer-Aided Molecular Design (2001), 15(9), 767-785
CODEN: JCADEQ; ISSN: 0920-654X
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Recently, we reported structurally novel PDE4 inhibitors based on 1,4-benzodiazepine derivs. The main interest in developing benzodiazepine-based PDE4 inhibitors is in their lack of adverse effects of emesis with respect to rolipram-like compds. A large effort has thus been made toward the structural optimization of this series. In the absence of structural information on the inhibitor binding mode into the PDE4 active site, 2D-QSAR (H-QSAR) and two 3D-QSAR (CoMFA and CoMSIA) methods were applied to improve our understanding of the mol. mechanism controlling the PDE4 affinity of the benzodiazepine derivs. As expected, the CoMSIA 3D contour maps have provided more information on the benzodiazepine interaction mode with the PDE4 active site whereas CoMFA has built the best tool for activity prediction. The 2D pharmacophoric model derived from CoMSIA fields is consistent with the crystal structure of the PDE4 active site reported recently. The combination of the 2D and 3D-QSAR models was used not only to predict new compds. from the structural optimization process, but also to screen a large library of benzodiazepine derivs.
IT 418814-47-8, PD 0190831
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(structure-activity relationship model to assess affinity of benzodiazepine derivs. to phosphodiesterase IV catalytic center)
RN 418814-47-8 CA
CN 4-Quinolinecarboxamide, N-[(3R)-3,4,6,7-tetrahydro-9-methyl-4-oxo-1-phenylpyrrolo[3,2,1-jk][1,4]benzodiazepin-3-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS

L7 ANSWER 2 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L7 ANSWER 3 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 136:284433 CA
TITLE: Administration of phosphodiesterase inhibitors for the treatment of premature ejaculation
INVENTOR(S): Wilson, Leland F.; Doherty, Paul C.; Place, Virgil A.; Smith, William L.; Abdel-Hamid, Abdou Ali Ibrahim Aboubakr
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. Ser. No. 467,094.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20020037828	A1	20020328	US 2001-888250	20010621
US 6403597	B2	20020611		
US 6037346	A	20000314	US 1998-181070	19981027
<--				
US 6548490	B1	20030415	US 1999-467094	19991210
CA 2451152	A1	20030103	CA 2002-2451152	20020325
WO 2003000343	A2	20030103	WO 2002-US9415	20020325
WO 2003000343	A3	20040325		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002248712	A1	20030108	AU 2002-248712	20020325
EP 1418896	A2	20040519	EP 2002-717729	20020325
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JP 2005519851	T	20050707	JP 2003-506984	20020325
AU 2005248938	A1	20060202	AU 2005-248938	20051223

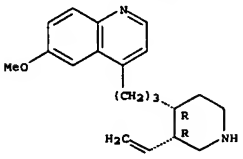
PRIORITY APPLN. INFO.:

US 1997-958816	B2 19971028
US 1998-181070	A2 19981027
US 1999-467094	A2 19991210
AU 2001-22566	A3 20001208
US 2001-888250	A 20010621
WO 2002-US9415	W 20020325

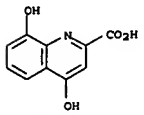
AB A method is provided for treatment of premature ejaculation by

L7 ANSWER 3 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
administration of a phosphodiesterase inhibitor, e.g., an inhibitor of a Type III, Type IV, or Type V phosphodiesterase. In a preferred embodiment, administration is on as "as needed" basis, i.e., the drug is administered immediately or several hours prior to sexual activity. Pharmaceutical formulations and packaged kits are also provided. Zaprinast 1.0, mannitol 1.0, microcryst. cellulose 2.0, and magnesium stearate 10 mg are blended in a suitable mixer and then compressed into sublingual tablets. Each sublingual tablet contains 10 mg zaprinast.
IT 72714-74-0, Viqualine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(administration of phosphodiesterase inhibitors for treatment of premature ejaculation)
RN 72714-74-0 CA
CN Quinoline, 4-[3-[(3R,4R)-3-ethenyl-4-piperidinyl]propyl]-6-methoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 4 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 136:82425 CA
TITLE: The gametocyte-activating factor xanthurenic acid stimulates an increase in membrane-associated guanylyl cyclase activity in the human malaria parasite Plasmodium falciparum
AUTHOR(S): Muhia, David K.; Swales, Claire A.; Deng, Wensheng; Kelly, John M.; Baker, David A.
CORPORATE SOURCE: Department of Infectious and Tropical Diseases, London School of Hygiene and Tropical Medicine, London, WC1E 7HT, UK
SOURCE: Molecular Microbiology (2001), 42(2), 553-560
CODEN: MOMIEE; ISSN: 0950-382X
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Sex is an obligate step in the life cycle of the malaria parasite and occurs in the midgut of the mosquito vector. With both Plasmodium falciparum and Plasmodium berghei, the tryptophan metabolite xanthurenic acid induces the release of motile male gametes from red blood cells (exflagellation), a prerequisite for fertilization. The addition of cGMP or phosphodiesterase inhibitors to cultures of mature gametocytes has also been shown to stimulate exflagellation. Here, the authors demonstrate that there is a guanylyl cyclase activity associated with mature P. falciparum gametocyte membrane prepns., which is dependent on the presence of Mg^{2+}/Mn^{2+} but is inhibited by Ca^{2+}. Significantly, this activity is increased on addition of xanthurenic acid. In contrast, a xanthurenic acid precursor (3-hydroxykynurenine), which is not an inducer of exflagellation, does not induce this guanylyl cyclase activity. These results therefore suggest that xanthurenic acid-induced exflagellation may be mediated by activation of the parasite cGMP signalling pathway.
IT 59-00-7, Xanthurenic acid
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(gametocyte-activating factor xanthurenic acid stimulates increase in membrane-associated guanylyl cyclase activity in Plasmodium falciparum)
RN 59-00-7 CA
CN 2-Quinolinecarboxylic acid, 4,8-dihydroxy- (CA INDEX NAME)



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L7 ANSWER 4 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

L7 ANSWER 5 OF 109 CA COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 135:344472 CA
TITLE: Preparation of 6-(5-oxazolyl)-4(1H)-quinolinones as inhibitors of IMPDH enzyme
INVENTOR(S): Iwanowicz, Edwin J.; Watterson, Scott H.; Dhar, T. G. Murali; Pitts, William J.; Gu, Henry H.
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
SOURCE: PCT Int. Appl., 263 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081340	A2	20011101	WO 2001-US12900	20010419
WO 2001081340	A3	20020523		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2407370	A1	20011101	CA 2001-2407370	20010419
EP 1276739	A2	20030122	EP 2001-928708	20010419
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003531205	T	20031021	JP 2001-578430	20010419
US 2002040022	A1	20020404	US 2001-840503	20010423
US 6919335	B2	20050719		
PRIORITY APPLN. INFO.:			US 2000-199420P	P 20000424
			WO 2001-US12900	W 20010419

OTHER SOURCE(S): MARPAT 135:344472
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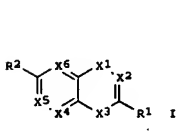
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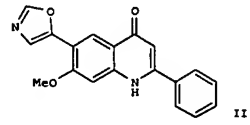
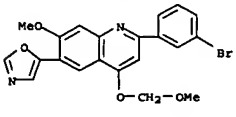

II

L7 ANSWER 5 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

AB Title compds. I [wherein X1 = CO, SO, or SO2; X2 = CR3 or N; X3 = NH, O, or S; X4 = CR4 or N; X5 = CR5 or N; X6 = CR6 or N] were prepared were prepared as inosine monophosphate dehydrogenase (IMPDH) enzyme inhibitors. For example, acetalization of 4-nitro-2-methoxytoluene with AcOH (51%), reduction to the aldehyde (91%), and cycloaddn. with (p-tolylsulfonyl)methyl isocyanate gave 5-(4-nitro-2-methoxyphenyl)oxazole (84%), which was reduced to the amine (95%). Alkylation with Et benzoylacetate and cyclization afforded the 6-(5-oxazolyl)-4(1H)-quinolinone II. Thus, I are useful as therapeutic agents for IMPDH-associated disorders, such as allograft rejection (no data).
IT 371249-73-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of oxazolylquinolinones as inhibitors of IMPDH enzyme for treatment of transplant rejection and other IMPDH-associated disorders)
RN 371249-73-9 CA
CN Quinoline, 2-(3-bromophenyl)-7-methoxy-4-(methoxymethoxy)-6-(5-oxazolyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 6 OF 109 CA COPYRIGHT 2007 ACS on STN

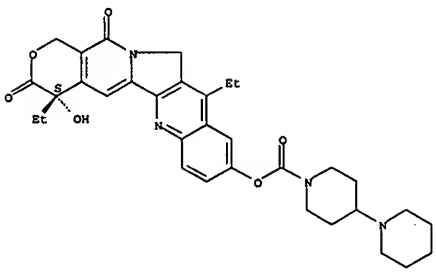
ACCESSION NUMBER: 135:339217 CA
TITLE: Method for treating a patient with neoplasia by treatment with a topoisomerase I inhibitor and a cGMP-specific phosphodiesterase inhibitor
INVENTOR(S): Pamukcu, Rifat; Lobacki, Joseph
PATENT ASSIGNEE(S): Cell Pathways, Inc., USA
SOURCE: PCT Int. Appl., 94 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001078651	A2	20011025	WO 2001-US11865	20010412
WO 2001078651	A3	20020314		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001055322	A5	20011030	AU 2001-55322	20010412
EP 1278519	A2	20030129	EP 2001-928470	20010412
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			US 2000-548135	A 20000412
			WO 2001-US11865	W 20010412

AB The invention provides a method for treating a patient with neoplasia by an adjuvant therapy that includes treatment with a topoisomerase I inhibitor and a cGMP-specific phosphodiesterase inhibitor. Isolation and characterization of phosphodiesterase activity from cancer cells is also described.
IT 97682-44-5, Irinotecan
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topoisomerase I inhibitor and cGMP-specific phosphodiesterase inhibitor for neoplasia treatment)
RN 97682-44-5 CA
CN [1,4'-Bipiperidine]-1'-carboxylic acid, (4S)-4,11-diethyl-3,4,12,14-tetrahydro-4-hydroxy-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-9-yl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L7 ANSWER 6 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)



L7 ANSWER 7 OF 109 CA COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 135:303908 CA

TITLE: 8-(Quinolinylmethyl)xanthine and 8-(isoquinolinylmethyl)xanthine derivatives as PDE 5 inhibitors, useful for treatment of erectile dysfunction

INVENTOR(S): Bhalay, Gurdip; Collingwood, Stephen Paul; Fairhurst, Robin Alec; Gomez, Sylvie Felicite; Naef, Reto; Sandham, David Andrew

PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis-Erfindungen Verwaltungsgesellschaft m.b.H.

SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001077110	A1	20011018	WO 2001-EP3909	20010405

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2403514	A1	20011018	CA 2001-2403514	20010405

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AU 200173921	A	20011023	AU 2001-73921	20010405

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EP 1268480	A1	20030102	EP 2001-940294	20010405
EP 1268480	B1	20031105		

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BR 2001009855	A	20030603	BR 2001-9855	20010405
HU 200300565	A2	20030728	HU 2003-565	20010405
JP 2003530398	T	20031014	JP 2001-575583	20010405
JP 3869725	B2	20070117		
AT 253576	T	20031115	AT 2001-940294	20010405
PT 1268480	T	20040331	PT 2001-940294	20010405
NZ 521361	A	20040528	NZ 2001-521361	20010405
ES 2210169	T3	20040701	ES 2001-1940294	20010405
RU 2269529	C2	20060210	RU 2002-129557	20010405
NO 2002004741	A	20021002	NO 2002-4741	20021002
US 2003171384	A1	20030911	US 2002-240481	20021002
ZA 2002007956	A	20030716	ZA 2002-7956	20021003
IN 2002CN01618	A	20050128	IN 2002-CN1618	20021004
US 2004038996	A1	20040226	US 2003-644328	20030820
US 6919337	B2	20050719		
US 2005054660	A1	20050310	US 2004-937639	20040909
US 7019136	B2	20060328		

L7 ANSWER 7 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

US 2006173181	A1	20060803	US 2005-274030	20051115
US 2006106214	A1	20060518	US 2006-339889	20060111

PRIORITY APPLN. INFO.: GB 2000-8694 A 20000407

WO 2001-EP3909 W 20010405

US 2002-240481 B1 20021002

US 2003-644328 A3 20030820

US 2004-937639 A1 20040909

OTHER SOURCE(S): MARPAT 135:303908

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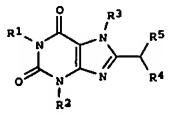

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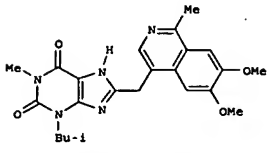


II

AB Compds. of formula I, in free or salt form, are disclosed [where R1 = H or alkyl (un)substituted by OH, alkoxy, or alkylthio; R2 = H, alkyl, hydroxyalkyl, alkylcarbonyloxyalkyl, alkoxyalkyl, alkylthioalkyl, alkenyl, cycloalkylalkyl, heterocyclylalkyl, aralkyl [aryl ring optionally fused to 5-membered heterocyclic group or substituted by alkoxy, (di)(alkyl)amino, acylamino, halo, OH, aminosulfonyl, alkylaminosulfonyl, dialkylaminosulfonyl, alkylsulfonylamino or dialkylaminosulfonylamino]; R3 = H or alkyl optionally substituted by OH, alkoxy, or alkylthio; R4 = H or alkyl; R5 = (un)substituted quinolinyl, isoquinolinyl, or oxodihydroisoquinolinyl, optionally fused to 5-membered heterocyclic group [substituents = halo, cyano, OH, alkyl, hydroxyalkyl, alkoxyalkyl, alkylthioalkyl, alkoxy, alkylthio, alkenyl, alkoxycarbonyl, alkynyl, carboxyl, acyl, N(R6)R7, (un)substituted aryl (substituents = halo or

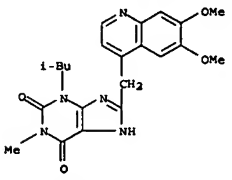
L7 ANSWER 7 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

alkoxy), or 5- or 6-membered heteroaryl attached through ring C]; R6, R7 = H or alkyl (optionally substituted by OH or alkoxy); or 1 of R6 and R7 = H, the other = acyl; or NR6R7 = 5- or 6- membered heterocyclyl]. I are inhibitors of cGMP phosphodiesterases (PDEs), and in particular are selective inhibitors of PDE5. They exhibit good selectivity for PDE5 over PDE1 and PDE6, indicating a low side-effect profile. I are of particular interest for use in the treatment of sexual dysfunction, esp. male erectile dysfunction. Examples include 87 product syntheses and 59 intermediate prepns. Ten compds. are particularly preferred, and these are specifically claimed. For instance, cyclocondensation of 5,6-diamino-1-isobutyl-3-methyl-1H-pyrimidine-2,4-dione with (6,7-dimethoxy-1-methylisoquinolin-4-yl)acetic acid (prepns. given), using EDC in aq. MeOH, gave the preferred title compd. II. In an in vitro assay for PDE5 inhibition, I gave IC50 values of 0.0005 μM to 10 μM, e.g., 0.007 μM for II.

IT 366445-25-2P, 8-(6,7-Dimethoxyquinolin-4-ylmethyl)-3-isobutyl-1-methyl-3,7-dihydropurine-2,6-dione
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of quinoline-xanthine and isoquinoline-xanthine derivs. as PDE 5 inhibitors)

RN 366445-25-2 CA

CN 1H-Purine-2,6-dione, 8-[(6,7-dimethoxy-4-quinolinyl)methyl]-3,7-dihydro-1-methyl-3-(2-methylpropyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 135:272895 CA
TITLE: Preparation of Furanoisoquinoline derivatives as phosphodiesterase IV inhibitors
INVENTOR(S): Kawano, Yasuhiko; Matsumoto, Tatsumi; Uchikawa, Osamu; Fujii, Nobuhiro; Tarui, Naoki
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., USA
SOURCE: PCT Int. Appl., 620 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001070746	A1	20010927	WO 2001-JP2277	20010322
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2404226	A1	20010927	CA 2001-2404226	20010322
AU 2001039550	A	20011003	AU 2001-39550	20010322
EP 1270577	A1	20030102	EP 2001-914191	20010322
EP 1270577	B1	20061206		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
AT 347557	T	20061215	AT 2001-914191	20010322
JP 2001335579	A	20011204	JP 2001-84210	20010323
US 2004092582	A1	20040513	US 2002-239439	20020920
US 6924292	B2	20050802		
PRIORITY APPLN. INFO.:			JP 2000-87121 A	20000323
			WO 2001-JP2277 W	20010322

OTHER SOURCE(S): CASREACT 135:272895; MARPAT 135:272895
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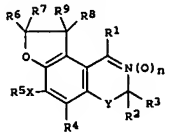
L7 ANSWER 8 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)



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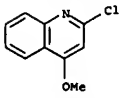
AB Title compds. [I; R1 = C6H5, 4-HOC6H4, 1-naphthyl, 4-CH3OC6H4, 2-CH3OC6H4, 4-NH2C6H4, 4-C6H5C6H4, 4-BrC6H4, CH3, C6H5CO, 3-CH3SCH2CONHC6H4, 3-CH3OCOC6H4, 3-NH2C(CH3)2CONHC6H4, 3-furyl, 3-HOOCC6H4, 2-chloro-4-pyridyl, 3-CH3CH2OCOC6H4, 4-pyridylethylaminocarbonyl; R2 = CH3, CH2Br, CH3CH2, H, CH3COO; R3 = CH3, H; R2R3 = (CH2)5; R4 = H, CH2N(CH3)2, CH2SC6H5, CH2C(:CH2)CH3, CH2NHCOCH3, CH3OCH2, CH2OH, CH2P, CH2COOH, CH2CN; R5 = Cl, OCH3, CON(CH3)2, CH3O, H, CH3CH2O, NH2, CHONH, CH3SO2NH, NH2CONH, CH3CH2S, CH3; R6 = CH3, H, CH3CH; R7 = CH3, H, CH3CH2; R6R7 = (CH2)5; R8 = H, CH3; R9 = H, CH3; Y = CH2, CHOH, C:O, C(CH3)2; X = electron pair, O, S; n = 0, 1) and salts are prepared as phosphodiesterase IV inhibitors. Title compds. are useful as preventives and remedies for diseases caused by inflammation, for example, bronchial asthma, chronic obstructive pulmonary disease (COPD), rheumatoid arthritis, autoimmune disease and diabetes. Thus, the title compound I (R6 = CH3; R7 = CH3; R2 = CH3; R3 = CH3; X = O; R5 = CH3; n = 0; R9 = H; R8 = H; R1 = 3-CH3S:OCH2CONHC6H4) was prepared and biol. tested.
IT 4295-09-4, 2-Chloro-4-methoxyquinoline
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of furano-isoquinoline derivs. as phosphodiesterase IV inhibitors)
RN 4295-09-4 CA
CN Quinoline, 2-chloro-4-methoxy- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



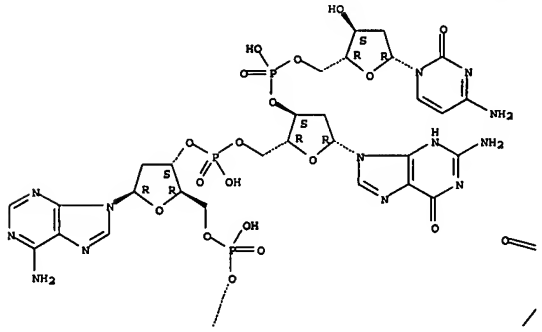
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 135:242451 CA
TITLE: Synthesis and nuclease stability of tri-lysyl dendrimer-oligodeoxyribonucleotide hybrids
AUTHOR(S): Sarracino, D. A.; Richert, C.
CORPORATE SOURCE: Department of Chemistry, Tufts University, Medford, MA, 02155, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (2001), 11(13), 1733-1736
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Hybrids of oligonucleotides and tri-lysyl-dendrimers with terminal acyl groups were prepared via solid-phase synthesis, including a DNA hexamer bearing an addnl. 3'-appendage. These were shown to be degraded more slowly by nuclease S1 than control strands, particularly at low pH, and, in one case, to form a duplex with a complementary strand whose m.p. at pH 7 was higher than that of the control duplex. A dendrimer-oligonucleotide hybrid with terminal nalidixic acid residues shows increased resistance to endo- and exonucleases, particularly at low pH, as well as enhanced affinity for a target strand.
IT 360577-43-1P
RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(synthesis and nuclease stability of tri-lysyl dendrimer oligodeoxyribonucleotide hybrids)
RN 360577-43-1 CA
CN Cytidine, 5'-[[N2,N6-bis[N2,N6-bis[(4,8-dihydroxy-2-quinolinyl)carbonyl]-L-lysyl]-L-lysyl]amino]-5'-deoxythymidylyl-(3'→5')-2'-deoxyadenylyl-(3'→5')-2'-deoxyguanylyl-(3'→5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L7 ANSWER 9 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

PAGE 1-A



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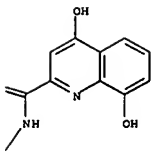
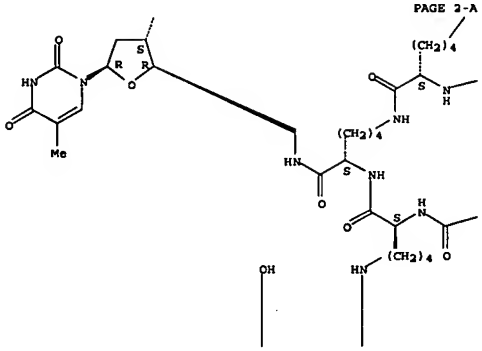
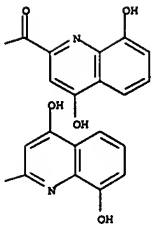


L7 ANSWER 9 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

PAGE 2-A

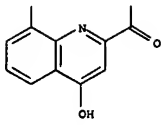


PAGE 2-B



L7 ANSWER 9 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

PAGE 3-A



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

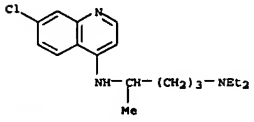
L7 ANSWER 10 OF 109 CA COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 135:86776 CA
TITLE: In vitro inhibitory effect of protopanaxadiol ginsenosides on tumor necrosis factor (TNF)-α production and its modulation by known TNF-α antagonists
AUTHOR(S): Cho, Jae Youl; Yoo, Eun Sook; Baik, Kyong Up; Park, Myung Hwan; Han, Byung Hoon
CORPORATE SOURCE: Department of Immunopharmacology, R & D Center, Daewoong Pharmaceutical Co., Sungnam, S. Korea
SOURCE: Planta Medica (2001), 67(3), 213-218
CODEN: PLMEAA; ISSN: 0032-0943
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Ginsenosides are the major principles of Panax ginseng C. A. Meyer (Araliaceae) used as a mild oriental folk medicine. In this report, we have examined the inhibitory potency of protopanaxadiol ginsenosides (PPDGs) such as Rb1, Rb2 and Rc, and their co-treatment effect with known tumor necrosis factor (TNF)-α antagonists on TNF-α production in either murine (RAW264.7) or human (U937) macrophages stimulated with lipopolysaccharide (LPS). Rb1, and Rb2 strongly suppressed TNF-α production in RAW264.7 cells with an IC50 of 56.5 and 27.5 μM, resp., and in differentiated U937 cells with an IC50 of 51.3, and 26.8 μM, resp. The inhibitory activity of Rb1 and Rb2 was significantly increased by pharmacol. agents against protein kinase C, protein tyrosine kinase, and protein kinase A, and anti-rheumatoid arthritis drugs, such as chloroquine and steroid drugs. In contrast, only cAMP phosphodiesterase (cAMP PDE) inhibitors among cAMP-elevating agents did not change the inhibitory potency of PPDGs. These data suggest that PPDGs may possess potential therapeutic efficacy against TNF-α mediated disease and the therapeutic potency of PPDGs may be enhanced when co-treated with various kinds of known TNF-α antagonists but not with cAMP PDE inhibitors.

IT 54-05-7, Chloroquine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(effect of protopanaxadiol ginsenosides on TNF-α production and modulation by known TNF-α antagonists)

RN 54-05-7 CA
CN 1,4-Pentanediamine, N4-(7-chloro-4-quinolinyl)-N1,N1-diethyl- (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR

L7 ANSWER 10 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L7 ANSWER 11 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 134:337920 CA
TITLE: Improved automated LPA assay and methods of detecting cancer
INVENTOR(S): Russell, John C.; Granados, Edward N.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

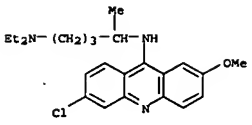
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032916	A2	20010510	WO 2000-US30280	20001102
WO 2001032916	A3	20020711		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2389832	A1	20010510	CA 2000-2389832	20001102
EP 1238099	A2	20020911	EP 2000-976865	20001102
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003530081	T	20031014	JP 2001-535596	20001102
PRIORITY APPLN. INFO.:			US 1999-163534P	P 19991104
			WO 2000-US30280	W 20001102

AB The present invention relates to an improved enzymic diagnostic assay to detect carcinoma by measuring various lysophospholipids, including lysophosphatidic acid (LPA), in a patient. In a preferred embodiment, this assay measures the human plasma level of LPA in an automated format with a minimal number of reagents and with reduced incubation periods. The present invention also comprises several addnl. tech. improvements to the current LPA assays disclosed in the prior art.

IT 83-89-6, Quinacrine
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(improved automated LPA assay and methods of detecting cancer)

RN 83-89-6 CA
CN 1,4-Pentanediamine, N4-(6-chloro-2-methoxy-9-acridinyl)-N1,N1-diethyl- (CA INDEX NAME)

L7 ANSWER 11 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)



L7 ANSWER 12 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 134:292062 CA
TITLE: Cloning, detection and characterization of a tyrosine-DNA phosphodiesterase from human and yeast and a method of assessing the efficacy of a topoisomerase I inhibitor
INVENTOR(S): Pouliot, Jeffrey; Nash, Howard A.
PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

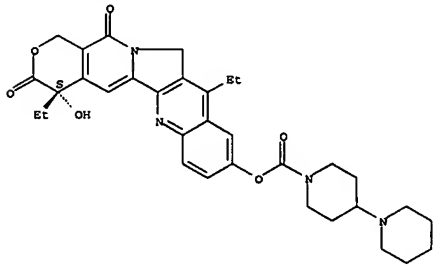
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025407	A2	20010412	WO 2000-US27400	20001005
WO 2001025407	A3	20011129		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001010732	A	20010510	AU 2001-10732	20001005
US 7087736	B1	20060808	US 2002-110176	20020627
PRIORITY APPLN. INFO.:			US 1999-157690P	P 19991005
			WO 2000-US27400	W 20001005

AB The present invention provides a nucleic acid mol. encoding a tyrosine-DNA phosphodiesterase (TDP1), and a related vector, host cell, polypeptide, antibody, antisense nucleic acid mol., and ribozyme. The tyrosine-DNA phosphodiesterase is responsible for hydrolysis of the covalent complexes between DNA and topoisomerase I, acting on a tyrosine linked through the side-chain oxygen to the 3' phosphate of DNA. The genomic DNA sequence and the encoded amino acid sequence of the yeast TDP1 gene are disclosed. The yeast TDP1 gene encodes a protein of 544 amino acids with a mol. weight of about 62,000. The cDNA sequence and the encoded amino acid sequence of the human TDP1 gene are also provided. Also provided are a method of altering the level of TDP in a cell, tissue, organ or organism, as well as the resulting cell, tissue, organ or non-human organism, as well as a method of identifying a TDP-resistant compound, a method of assessing TDP1 activity in an animal, and a method of assessing the efficacy of a topoisomerase I inhibitor.

IT 97682-44-5D, Irinotecan, analogs
RL: ANT (Analyte); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(cloning, detection and characterization of tyrosine-DNA phosphodiesterase from human and yeast and method of assessing efficacy of topoisomerase I inhibitor)

RN 97682-44-5 CA
CN [1,4'-Bipiperidine]-1'-carboxylic acid, (4S)-4,11-diethyl-3,4,12,14-tetrahydro-4-hydroxy-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-9-yl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L7 ANSWER 13 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 134:178473 CA
TITLE: Preparation process of quinoline compounds as cGMP-specific phosphodiesterase inhibitors
INVENTOR(S): Umeda, Nobuhiro; Ito, Kunihito; Uchida, Seiichi; Shiinoki, Yasuyuki
PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001012608	A1	20010222	WO 2000-JP5497	20000817

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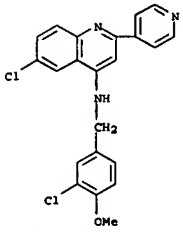
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: JP 1999-231347 A 19990818

OTHER SOURCE(S): MARPAT 134:178473
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

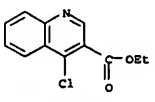
AB Novel quinoline compds. [I; R1 represents nitro, cyano, halogeno, etc.; n is 0 or an integer from 1 to 4; R2 and R3 represent hydrogene, etc.; R4 represents hydrogen, C1-6 alkyl, optionally substituted Ph, an optionally substituted saturated or unsatd. heterocycle, etc.; and R5 represents an optionally substituted saturated or unsatd. heterocycle bonded to the quinoline ring via a carbon atom in the cycle] and pharmaceutically acceptable salts are prepared and are useful as cGMP-specific phosphodiesterase (PDE) inhibitors . Thus, the title compound II was prepared and tested.
IT 324757-81-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation process of quinoline compds. as cGMP-specific phosphodiesterase inhibitors)
RN 324757-81-5 CA
CN 4-Quinolinamine, 6-chloro-N-[(3-chloro-4-methoxyphenyl)methyl]-2-(4-

L7 ANSWER 13 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
pyridinyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L7 ANSWER 14 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 134:162962 CA
TITLE: Synthesis and biological evaluation of 2,5-dihydropyrazolo[4,3-c]quinolin-3-ones, a novel series of PDE 4 inhibitors with low emetic potential and antiasthmatic properties
AUTHOR(S): Crespo, M. I.; Gracia, J.; Puig, C.; Vega, A.; Bou, J.; Beleta, J.; Domenech, T.; Ryder, H.; Segarra, V.; Palacios, J. M.
CORPORATE SOURCE: Almirall Prodesfarma, Research Centre, Barcelona, 08024, Spain
SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), 10(23), 2661-2664
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:162962
AB A novel series of 2,5-dihydropyrazolo[4,3-c]quinolin-3-ones was prepared These compds. showed good PDE 4 inhibitory activity and weak affinity for rolipram's binding site. They also exhibited a good anti-inflammatory profile without emetic side effects.
IT 13720-94-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and biol. activity of pyrazolo[4,3-c]quinolinones as selective type 4 phosphodiesterase inhibitors)
RN 13720-94-0 CA
CN 3-Quinolinecarboxylic acid, 4-chloro-, ethyl ester (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L7 ANSWER 15 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 134:29196 CA
TITLE: Preparation of novel catechol hydrazone derivatives as phosphodiesterase IV inhibitors
INVENTOR(S): Youn, Yong Sik; Xiang, Myung Xik; Suh, Byoung Chol; Kim, Jong Hoon; Lee, Kwang Hyuk; Kim, Eui Kyung; Shin, Jae Kyu; Rhee, Chung Keun
PATENT ASSIGNEE(S): Cheil Jedang Corporation, S. Korea
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000073280	A1	20001207	WO 1999-KR264	19990528

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RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2373944	A1	20001207	CA 1999-2373944	19990528

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AU 9939595	A1	20001218	AU 1999-39595	19990528

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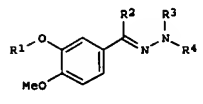
AU 758207	B2	20030320		
EP 1187817	A1	20020320	EP 1999-922643	19990528
EP 1187817	B1	20030730		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9917326	A	20020423	BR 1999-17326	19990528
JP 2003500479	T	20030107	JP 2000-621346	19990528
JP 3712619	B2	20051102		
NZ 515213	A	20030530	NZ 1999-515213	19990528
AT 246177	T	20030815	AT 1999-922643	19990528
US 6610715	B1	20030826	US 2001-959947	20011113

PRIORITY APPLN. INFO.: WO 1999-KR264 W 19990528

OTHER SOURCE(S): MARPAT 134:29196
GI



I

L7 ANSWER 15 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

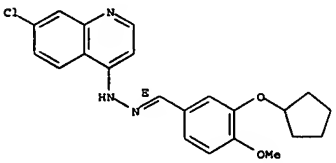
AB The title compds. [I; R1 = alkyl, cycloalkyl; R2 = H, OH, alkyl, CH2CH2CONH2; R3, R4 = H, alkyl, pyridyl, etc.; NR3R4 = piperidino, morpholino, etc.], useful as phosphodiesterase IV inhibitors, were prepared E.g., reacting 3-cyclopentyloxy-4-methoxybenzaldehyde with phenylhydrazine in EtOH afforded 89.4% (E)-I [R1 = cyclopentyl; R2, R3 = H; R4 = Ph] which showed 80% PDE IV inhibition at 20 μM.

IT 312268-73-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of novel catechol hydrazone derivs. as phosphodiesterase IV inhibitors)

RN 312268-73-8 CA

CN Benzaldehyde, 3-(cyclopentyloxy)-4-methoxy-, (7-chloro-4-quinolinyl)hydrazone, [C(E)]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L7 ANSWER 16 OF 109 CA COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 132:347493 CA

TITLE: Preparation of 1-heterocyclylmethylidene-N-benzyl-3-indenylacetamides as neoplasm inhibitors.

INVENTOR(S): Sperl, Gerhard J.; Gross, Paul; Brendel, Klaus; Piazza, Gary A.; Pamukcu, Rifat

PATENT ASSIGNEE(S): Cell Pathways, Inc., USA; University of Arizona

SOURCE: U.S., 18 pp., Cont.-in-part of U.S. Ser. No. 989,353. CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6066634	A	20000523	US 1998-206245	19981207
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US 5948779	A	19990907	US 1997-989353	19971212
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CA 2314339	A1	19990624	CA 1998-2314339	19981211
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WO 9931065	A1	19990624	WO 1998-GB3712	19981211
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AU 9914981	A	19990705	AU 1999-14981	19981211
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AU 752072	B2	20020905		
BR 9813540	A	20001010	BR 1998-13540	19981211
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EP 1044187	A1	20001018	EP 1998-959050	19981211
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EP 1044187	B1	20040102		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
TR 200001687	T2	20001023	TR 2000-200001687	19981211
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HU 200100170	A2	20010730	HU 2001-170	19981211
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HU 200100170	A3	20011228		
JP 2002508358	T	20020319	JP 2000-538992	19981211
NZ 504958	A	20030328	NZ 1998-504958	19981211
AT 257152	T	20040115	AT 1998-959050	19981211
ES 2212383	T3	20040716	ES 1998-959050	19981211
US 6166053	A	20001226	US 2000-490269	20000124
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NO 2000002972	A	20000809	NO 2000-2972	20000609
<--				
NO 317097	B1	20040809		

L7 ANSWER 16 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

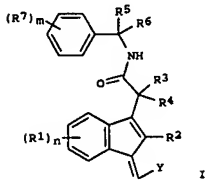
IN 2000CN00110	A	20050304	IN 2000-CN110	20000609
US 6426349	B1	20020730	US 2000-741970	20001220
US 2003009033	A1	20030109	US 2002-206687	20020726
US 6610854	B2	20030826		

PRIORITY APPLN. INFO.:

US 1997-989353	A2	19971212
US 1998-206245	A	19981207
WO 1998-GB3712	W	19981211
US 2000-490269	A1	20000124
US 2000-741970	A1	20001220

OTHER SOURCE(S): MARPAT 132:347493

GI



I

AB Title compds. (I; R1 = H, halo, alkyl, alkoxy, amino, alkylthio, alkylsulfonyl, etc.; R3 = H, halo, amino, OH; R4 = H; R3R4 = O; R5, R6 = H, alkyl, hydroxyalkyl, aminoalkyl, cyanoalkyl, CO2H, CONH2, etc.; R7 = H, aminoalkyl, alkoxy, alkyl, OH, amino, alkylamino, CO2H, SO3H, SO2NH2, alkylsulfonyl, etc.; m, n = 0-3), were prepared Thus, 5-fluoro-2-methyl-3-(N-benzyl)indenylacetamide (preparation given), 4-pyridinecarboxaldehyde, and NaOMe were heated in MeOH at 60° for 24 h to give (Z)-5-fluoro-2-methyl-1-(4-pyridinylmethylidene)-3-(N-benzyl)indenylacetate (II). II.HCl showed apoptosis in HT-29 human colon carcinoma cells with EC50 = 15 μM.

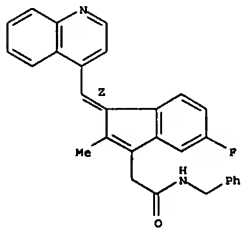
IT 227619-95-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of condensation products of 1-heterocyclylmethylidene-N-benzyl-3-indenylacetamides as neoplasm inhibitors)

RN 227619-95-6 CA

CN 1H-Indene-3-acetamide, 5-fluoro-2-methyl-N-(phenylmethyl)-1-(4-quinolinylmethylene)-, (1Z)- (9CI) (CA INDEX NAME)

L7 ANSWER 16 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

Double bond geometry as shown.



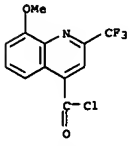
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L7 ANSWER 17 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 132:321807 CA
TITLE: Preparation of N-oxides of N-(pyridin-4-yl) quinoline-5-carboxamides with TNF and PDE-IV inhibiting activity
INVENTOR(S): Dyke, Hazel Joan; Montana, John Gary
PATENT ASSIGNEE(S): Darwin Discovery Limited, UK
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000026208	A1	20000511	WO 1999-GB3628	19991102
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
TW 546296	B	20030811	TW 1999-88118098	19991020
CA 2312430	A1	20000511	CA 1999-2312430	19991102
BR 9906719	A	20001017	BR 1999-6719	19991102
EP 1045845	A1	20001025	EP 1999-954132	19991102
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200001941	T1	20010122	TR 2000-200001941	19991102
AU 735574	B2	20010712	AU 2000-10571	19991102
NZ 504933	A	20011026	NZ 1999-504933	19991102
HU 200100570	A2	20011028	HU 2001-570	19991102
JP 2002528541	T	20020903	JP 2000-579596	19991102
RU 2205830	C2	20030610	RU 2000-120469	19991102
US 6262070	B1	20010717	US 1999-433274	19991103
ZA 2000002604	A	20010528	ZA 2000-2604	20000525
NO 2000003439	A	20000703	NO 2000-3439	20000703
US 2001025049	A1	20010927	US 2001-822071	20010330
US 6410559	B2	20020625		
US 2002183358	A1	20021205	US 2002-150281	20020516
US 6642254	B2	20031104		

L7 ANSWER 17 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

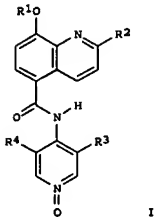


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L7 ANSWER 17 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
PRIORITY APPLN. INFO.:

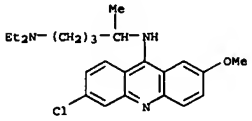
GB 1998-24160	A	19981104
US 1998-112545P	P	19981216
WO 1999-GB3628	W	19991102
US 1999-433274	A3	19991103
US 2001-822071	A1	20010330

OTHER SOURCE(S): MARPAT 132:321807
GI



AB The title compds. [I; R1 = Me, CH2F, CHF2, CF3; R2 = Me, CF3; R3 = F, Cl, Br, CN, Me; and R4 = H, F, Cl, Br, CN, Me], useful as therapeutic agents, e.g. for the treatment of inflammatory diseases, were prepared Thus, treatment of 8-methoxy-2-trifluoromethylquinoline-5-carboxylic acid (3,5-dichloropyridin-4-yl)amide with 36-40% peracetic acid in acetic acid afforded I [R1 = Me; R2 = CF3; R3 = R4 = Cl] for which the pharmacokinetic profile was determined in rats.
IT 266995-51-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of N-oxides of N-(pyridin-4-yl) quinoline-5-carboxamides with TNF and PDE-IV inhibiting activity)
RN 266995-51-1 CA
CN 4-Quinolinecarbonyl chloride, 8-methoxy-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L7 ANSWER 18 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 132:216984 CA
TITLE: Interaction of various intracellular signaling mechanisms involved in mononuclear phagocyte toxicity toward neuronal cells
AUTHOR(S): Klegeris, Andis; McGeer, Patrick L.
CORPORATE SOURCE: Kinsmen Laboratory of Neurological Research, University of British Columbia, Vancouver, BC, V6T 1Z3, Can.
SOURCE: Journal of Leukocyte Biology (2000), 67(1), 127-133
CODEN: JLBIE7; ISSN: 0741-5400
PUBLISHER: Federation of American Societies for Experimental Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Microglia become activated in a wide range of neurodegenerative disorders, including Alzheimer's disease. Such activation may lead to autodestruction of neurons. It is demonstrated here that activation of both human microglia and monocytic THP-1 cells by a combination of lipopolysaccharide and interferon-γ results in secretion of neurotoxins that kill human neuronal SH-SY5Y cells. This neurotoxicity can be partially blocked by inhibitors of cytosolic phospholipase A2, cGMP-selective phosphodiesterases, or protein kinase C. When combinations of these inhibitors, or combinations of an inhibitor plus nordihydroguaiaretic acid, or the nonsteroidal anti-inflammatory drug diclofenac were tried, additive redns. in neurotoxicity were observed It is concluded that the stimulants activated multiple intracellular pathways, and that combination therapies inhibiting these pathways might be beneficial for treating neurodegenerative disorders.
IT 83-89-6, Quinacrine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(interaction of various intracellular signaling mechanisms involved in mononuclear phagocyte toxicity toward neuronal cells)
RN 83-89-6 CA
CN 1,4-Pentanediamine, N4-(6-chloro-2-methoxy-9-acridinyl)-N1,N1-diethyl- (CA INDEX NAME)



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L7 ANSWER 19 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 132:207769 CA
TITLE: Preparation of isoquinolinones as effective component in medicine
INVENTOR(S): Ukita, Shinzo; Ohmori, Kanji; Ikeo, Tomihiro
PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 148 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000072675	A	20000307	JP 1998-240446	19980826

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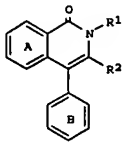
PRIORITY APPLN. INFO.: JP 1998-240446 19980826

OTHER SOURCE(S): MARPAT 132:207769
GI



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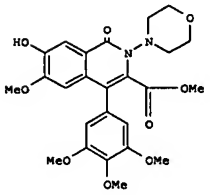
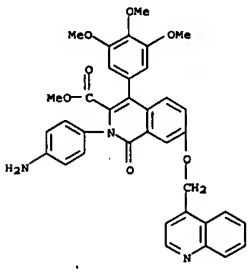


II

AB Title compds. [I; ring A and ring B equivalent or different, substituted or

L7 ANSWER 19 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
unsubstituted benzene ring; R1 = H, N(CH3)2, 4-H2NC6H4, 4-CH3OCOC6H4, alkyl, cycloalkyl, aryl, complex cyclic; R2 = COOH, COOCH3, COOCH2CH3, COOCH2C6H5, COO(CH2)3CH3] and pharmaceutical acceptable salts are prepd. and tested as PDEV inhibitors. The title compd. II was prepd.
IT 212492-91-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of isoquinolinones as effective component in medicine)
RN 212492-91-6 CA
CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-7-(4-quinolinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

L7 ANSWER 20 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 132:189689 CA
TITLE: Bioreductive conjugates for drug targeting
INVENTOR(S): Adams, Ged; Blake, David; Naughton, Declan; Stratford, Ian
PATENT ASSIGNEE(S): Theramark Limited, UK; Adams, Margaret
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000010610	A2	20000302	WO 1999-GB2606	19990819

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W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9954296	A1	20000314	AU 1999-54296	19990819

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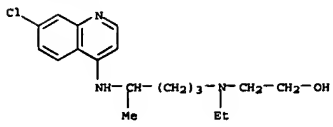
PRIORITY APPLN. INFO.:
GB 1998-18027 A 19980819
GB 1998-18156 A 19980820
WO 1999-GB2606 W 19990819

OTHER SOURCE(S): MARPAT 132:189689
AB The use of a bioreductive conjugate comprised of a noncytotoxic bioreductive moiety having linked thereto at least one therapeutic agent, and salts thereof, is disclosed for the healing of wounds and the treatment of fibrotic disorders, ulcerative colitis, inflammatory bowel disease, epilepsy, cardiovascular reperfusion injury, cerebral reperfusion injury, hypertension, cystic fibrosis, psoriasis, para-psoriasis, peptic ulcers, gastric ulcers, duodenal ulcers, diabetic ulcers dementia, oncol., AIDS, rheumatoid arthritis, diabetes, and ischemia. Various specific conjugates for treating these conditions are also disclosed.
IT 118-42-3D, Hydroxychloroquine, conjugates
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bioreductive conjugates for drug targeting)
RN 118-42-3 CA
CN Ethanol, 2-[[4-[(7-chloro-4-quinolinyl)amino]pentyl]ethylamino]- (CA INDEX NAME)

L7 ANSWER 20 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)



L7 ANSWER 21 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 131:199702 CA
TITLE: Preparation of imidazoquinazoline derivatives or analogs thereof for treatment of erectile dysfunction
INVENTOR(S): Onoda, Yasuo; Takami, Hitoshi; Seishi, Takashi; Machii, Daisuke; Nomoto, Yuji; Takai, Haruki; Okumura, Hiroshi; Ohno, Tetsuji; Yamada, Koji; Ichimura, Michio
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan
SOURCE: PCT Int. Appl., 100 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9943674	A1	19990902	WO 1999-JP920	19990226
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W: AU, BG, BR, CA, CN, CZ, HU, IL, JP, KR, MX, NO, NZ, PL, RO, SG, SI, SK, UA, US, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9926411	A	19990915	AU 1999-26411	19990226
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PRIORITY APPLN. INFO.:			JP 1998-48329	A 19980227
			WO 1999-JP920	W 19990226

OTHER SOURCE(S): MARPAT 131:199702
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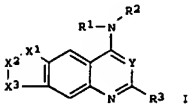
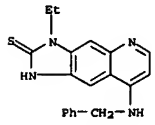


AB The title compds. I [R1, R2 = H, (un)substituted alkyl, etc.; R3 = H, (un)substituted alkyl, etc.; Y represents N or CH; X1X2X3 represents N:NNR7, NHC(:NCN)NR7, etc.; R7 = H, (un)substituted alkyl, etc.] are prepared Formulations containing a compound of this invention are given. I have a potent and selective cGMP-specific phosphodiesterase (PDE) inhibitory effect and are useful in treating or relieving sexual impotence, etc. The title compound I.2HCl [X1X2X3 = NHC(:S)N(Et); Y = N; R1 = 4-dimethylaminobenzyl; R2 = H; R3 = methyl] in vitro at 1 nM gave 86% inhibition of PDE V.

L7 ANSWER 21 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
IT 241815-62-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of imidazoquinazoline derivs. or analogs thereof for treatment of erectile dysfunction)
RN 241815-62-3 CA
CN 2H-Imidazo[4,5-g]quinoline-2-thione, 3-ethyl-1,3-dihydro-8-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

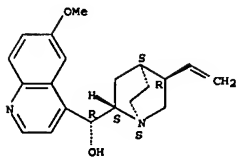
L7 ANSWER 22 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 131:142607 CA
TITLE: Transduction for sweet taste of saccharin may involve both inositol 1,4,5-trisphosphate and cAMP pathways in the fungiform taste buds in C57BL mice
AUTHOR(S): Nakashima, Kiyohito; Ninomiya, Yuzo
CORPORATE SOURCE: Dep. Chemistry, School Dentistry, Asahi Univ., Gifu, 501, Japan
SOURCE: Cellular Physiology and Biochemistry (1999), 9(2), 90-98
CODEN: CEPBEW; ISSN: 1015-8987
PUBLISHER: S. Karger AG
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The transduction pathways for sweet and bitter tastes were investigated with assays of inositol 1,4,5-trisphosphate (IP3) and cyclic adenosine monophosphate (cAMP) levels in mouse fungiform taste buds. Recordings of taste responses were also made in the chorda tympani nerve. Stimulation of the tongue with saccharin elicited a significant increase in IP3 levels in the fungiform papilla only at 20 mM but in cAMP levels at 3 and 20 mM, without affecting those of the nonsensory epithelial tissue. Formation of both IP3 and cAMP induced by 20 mM saccharin was suppressed by pretreatment of the tongue with pronase, a proteolytic enzyme which specifically inhibits sweet responses. Quinine and denatonium elicited both increases in IP3 levels at a concentration of 20 mM and slight decreases in cAMP levels at concns. of 1-20 mM in the fungiform papilla. Recording of the chorda tympani nerve showed good responses by saccharin, quinine, and denatonium at concns. of 1 mM and higher. These results suggest that the fungiform taste cells in C57BL mice have pronase-sensitive receptors for saccharin, coupled to both the IP3 and the cAMP pathways; the former participates only at high concentration, while the latter acts from low to high concns. The results also do not rule out the possibility that a phosphodiesterase-mediated cAMP decrease may be involved in bitter transduction for quinine and denatonium.

IT 130-89-2
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(transduction for sweet taste of saccharin may involve both inositol 1,4,5-trisphosphate and cAMP pathways in the fungiform taste buds in C57BL mice)
RN 130-89-2 CA
CN Cinchonan-9-ol, 6'-methoxy-, hydrochloride (1:1), (8α,9R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

L7 ANSWER 22 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)



● HCl

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 23 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 130:125067 CA
TITLE: Preparation of heterocyclic moiety-containing sulfonamide compounds as hypoglycemics
INVENTOR(S): Kayakiri, Hiroshi; Abe, Yoshito; Hamashima, Hitoshi; Sawada, Hitoshi; Mizutani, Tsuyoshi; Yamasaki, Noritsugu; Onomura, Osamu; Nishikawa, Masahiro; Hiramura, Takahiro; Oku, Teruo; Imoto, Takafumi
PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan; et al.
SOURCE: PCT Int. Appl., 472 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9900372	A1	19990107	WO 1998-JP2877	19980624
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W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2295239	A1	19990107	CA 1998-2295239	19980624
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AU 9879345	A	19990119	AU 1998-79345	19980624
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AU 745081	B2	20020314		
EP 995742	A1	20000426	EP 1998-929715	19980624
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
TR 200000486	T2	20000821	TR 2000-200000486	19980624
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HU 200002046	A2	20001228	HU 2000-2046	19980624
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BR 9810456	A	20010925	BR 1998-10456	19980624
<--				
RU 2199532	C2	20030227	RU 2000-101813	19980624
TW 426666	B	20010321	TW 1998-87110245	19980625
<--				
ZA 9805618	A	19990119	ZA 1998-5618	19980626
<--				
MX 9911779	A	20000630	MX 1999-11779	19991215
<--				
US 6348474	B1	20020219	US 2000-446110	20000214
US 2002099212	A1	20020725	US 2002-47093	20020117
US 6911469	B2	20050628		
US 2004180947	A1	20040916	US 2004-811989	20040330

PRIORITY APPLN. INFO.: JP 1997-208295 A 19970627

L7 ANSWER 23 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

JP 1998-114718 A 19980424
WO 1998-JP2877 W 19980624
US 2000-446110 A3 20000214
US 2002-47093 A3 20020117

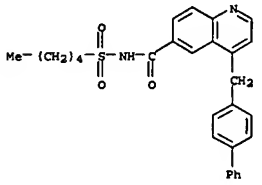
OTHER SOURCE(S): MARPAT 130:125067

AB The title compds. R1SO2NHCOAXR2 [R1 represents alkyl, alkenyl, alkynyl, etc.; A represents an optionally substituted polyheterocyclic group except benzimidazolyl, indolyl, 4,7-dihydrobenz-imidazolyl and 2,3-dihydrobenzoxazinyl; X represents alkylene, oxygen, oxygenated lower alkylene, etc.; and R2 represents optionally substituted aryl, substituted biphenylyl, etc.] are prepared These compds. are useful as hypoglycemics and have cGMP-PDE inhibitory, bronchodilating, vasodilating, smooth muscle cell inhibitory, and antiallergic effects, etc.

3-(2,4-Dichlorobenzyl)-2-methyl-5-(1-pentanesulfonylcarbamoyl)benzo[b]furan at 10 mg/kg gave 71% decrease of blood sugar in mice.

IT 219758-30-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of heterocyclic moiety-containing sulfonamide compds. as hypoglycemics)

RN 219758-30-2 CA
CN 6-Quinolinecarboxamide, 4-([1,1'-biphenyl]-4-ylmethyl)-N-(pentylsulfonyl)- (9CI) (CA INDEX NAME)



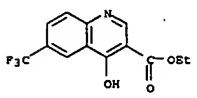
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 24 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 130:75727 CA
TITLE: Synthesis and evaluation of a novel series of phosphodiesterase IV inhibitors. A potential treatment for asthma
AUTHOR(S): Beasley, Steven C.; Cooper, Nicola; Gowers, Lewis; Gregory, Joanna P.; Haughan, A, Alan F.; Hellewell, Paul G.; Macar, David; Miotla, Jadwiga; Montana, John G.; Morgan, Trevor; Naylor, Robert; Runcie, Karen A.; Tuladhar, Bishwa; Warneck, Julie B. H.
CORPORATE SOURCE: Chiroscience Ltd, Cambridge, CB4 4WE, UK
SOURCE: Bioorganic & Medicinal Chemistry Letters (1998), 8(19), 2629-2634
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The synthesis and pharmacol. profile of a series of quinolones as non-catechol based potent and selective phosphodiesterase type IV inhibitors is described. The compds. displayed good oral activity in a functional model of inflammation using a range of key mediators at doses which showed no emetic side effects.

IT 26893-12-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and evaluation of quinolone derivs. as phosphodiesterase IV inhibitors for potential treatment of asthma)

RN 26893-12-9 CA
CN 3-Quinolinecarboxylic acid, 4-hydroxy-6-(trifluoromethyl)-, ethyl ester (8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 25 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 129:239891 CA
TITLE: Naphthalene derivatives as antiasthmatics
INVENTOR(S): Ukita, Tatsuzo; Ikezawa, Ichiro; Yamagata, Shinsuke
PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 57 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

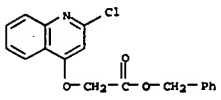
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10226647	A	19980825	JP 1997-342351	19971212
<--				
JP 3237109	B2	20011210		

PRIORITY APPLN. INFO.: JP 1996-333356 A 19961213

AB Naphthalene derivs. (Markush's structures included) and their pharmacol. acceptable salts are claimed as antiasthmatics, with phosphodiesterase IV-inhibiting activity, and for treatment of airway inflammation. The antiasthmatic, phosphodiesterase IV-inhibiting actions were tested in animal models.

IT 186462-32-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(naphthalene derivs. as antiasthmatics)

RN 186462-32-8 CA
CN Acetic acid, [(2-chloro-4-quinolinyl)oxy]-, phenylmethyl ester (9CI) (CA INDEX NAME)



L7 ANSWER 26 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 129:216521 CA
TITLE: Preparation of 1-isoquinolinone-3-carboxylates as PDE V inhibitors
INVENTOR(S): Ukita, Tatsuzo; Omori, Kenji; Ikeo, Tomihiro
PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan
SOURCE: PCT Int. Appl., 299 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9838168	A1	19980903	WO 1998-JP715	19980223
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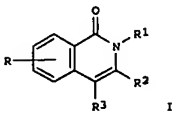
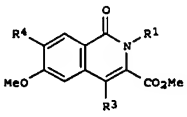
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
IN 1998MA00345	A	20050304	IN 1998-MA345	19980220
AU 9863300	A	19980918	AU 1998-63300	19980223
<--				
JP 10298164	A	19981110	JP 1998-44139	19980226
<--				
PRIORITY APPLN. INFO.:			JP 1997-44408	A 19970227
			WO 1998-JP715	W 19980223

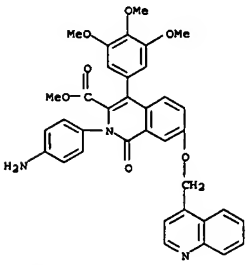
OTHER SOURCE(S): MARPAT 129:216521
GI


I


II

AB Title compds. [I; R = H or substituent(s); R1 = H, NH2, (cyclo)alkyl, heterocyclyl, aryl, etc.; R2 = (esterified) CO2H, CONH2, N-attached heterocyclylcarbonyl, etc.; R3 = (un)substituted Ph] were prepared as PDE V inhibitors (no data). Thus, 5-benzyloxy-4-methoxy-2-(3,4,5-trimethoxybenzoyl)benzoic acid was cyclocondensed with CH2(CO2CMe3)2 and the hydrated product cyclocondensed with 4-(H2N)C6H4NHCO2CMe3 to give, in 4 addnl. steps, title compound II [R1 = C6H4(NH2)-4, R3 = C6H2(OMe)3-3,4,5,

L7 ANSWER 26 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
R4 = 2-pyridylmethoxy].
IT 212492-91-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 1-isoquinolinone-3-carboxylates as PDE V inhibitors)
RN 212492-91-6 CA
CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-7-(4-quinolinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride (9CI) (CA INDEX NAME)


●2 HCl

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 27 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 129:166193 CA
TITLE: Therapeutic treatment and prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix
INVENTOR(S): Setterstrom, Jean A.; Van Hamont, John E.; Reid, Robert H.; Jacob, Elliot; Jeyanthi, Ramasubbu; Boedeker, Edgar C.; McQueen, Charles E.; Tice, Thomas R.; Roberts, F. Donald; Friden, Phil
PATENT ASSIGNEE(S): United States Dept. of the Army, USA; Van Hamont, John E.; et al.
SOURCE: PCT Int. Appl., 363 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 17
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9832427	A1	19980730	WO 1998-US1556	19980127
<--				
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6309669	B1	20011030	US 1997-789734	19970127
<--				
AU 9863175	A	19980818	AU 1998-63175	19980127
<--				
PRIORITY APPLN. INFO.:			US 1997-789734	A 19970127
			US 1984-590308	B1 19840316
			US 1992-867301	A2 19920410
			US 1995-446148	A2 19950522
			US 1995-446149	B2 19950522
			US 1996-590973	B2 19960124
			WO 1998-US1556	W 19980127

AB Novel burst-free, sustained release biocompatible and biodegradable microcapsules are disclosed which can be programmed to release their active core for variable durations ranging from 1-100 days in an aqueous physiol. environment. The microcapsules are comprised of a core of polypeptide or other biol. active agent encapsulated in a matrix of poly(lactide/glycolide) copolymer, which may contain a pharmaceutically acceptable adjuvant, as a blend of uncapped free carboxyl end group and end-capped forms ranging in ratios from 100/0 to 1/99.
IT 578-68-7D, 4-Aminoquinoline, derivs.
RL: BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL

L7 ANSWER 27 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
(Biological study); PROC (Process); USES (Uses)
(prevention of infections with bioactive material encapsulated within biodegradable-biocompatible polymeric matrix)
RN 578-68-7 CA
CN 4-Quinolinamine (CA INDEX NAME)

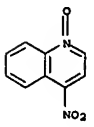
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 28 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 128:291593 CA
TITLE: Polynucleotide-chitosan complex, an insoluble but reactive form of polynucleotide
AUTHOR(S): Hayatsu, Hikoya; Kubo, Takashi; Tanaka, Yuji; Negishi, Kazuo
CORPORATE SOURCE: Fac. Pharm. Sci., Okayama Univ., Okayama, 700, Japan
SOURCE: Advances in Chitin Science (1997), 2, 525-530
CODEN: ACSCFF
PUBLISHER: Jacques Andre
DOCUMENT TYPE: Journal
LANGUAGE: English

AB DNA formed an insol. complex on mixing with chitosan (poly-D-glucosamine) in solution DNA content in the complex was about 50% (weight/weight). The DNA stayed insol. in aqueous media of pH 2-7; e.g., on treatment of the DNA-chitosan complex with phosphate-buffered saline at pH 7 and 37°C for 26 h, DNA released in to the aqueous phase was less than 0.05%. Obviously, DNA and chitosan formed a tight complex due to ionic interactions. The DNA can be solubilized by treatment with 0.1 N NaOH. RNA and other polynucleotides formed similar insol. complexes with chitosan. The DNA on chitosan can be digested with nucleases, and can be chemical modified. Using polynucleotide-chitosan as an adsorbent, affinities of reagents to polynucleotides can be determined directly. With this technique it was found that carcinogenic heterocyclic amines have affinity to RNA as well as the DNA. These results suggest that the polynucleotides in the chitosan complex were accessible by enzymes and reagents.

IT 56-57-5, 4-Nitroquinoline 1-oxide
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)
(polynucleotide-chitosan complex is an insol. but reactive form of polynucleotide)

RN 56-57-5 CA
CN Quinoline, 4-nitro-, 1-oxide (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

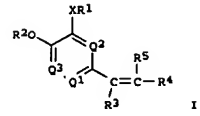
L7 ANSWER 28 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

L7 ANSWER 29 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 128:243956 CA
TITLE: Preparation and formulation of vinylpyridine derivatives as phosphodiesterase IV inhibitors and TNF-α production inhibitors
INVENTOR(S): Yamazaki, Kazuo; Ogawa, Yoichiro; Koya, Hidehiko; Mikami, Tadashi; Kawamoto, Noriyuki; Shioiri, Noriaki; Hasegawa, Hiroshi; Sato, Susumu
PATENT ASSIGNEE(S): SS Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 89 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

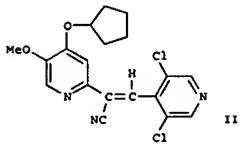
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9813348	A1	19980402	WO 1997-JP3354	19970922
W: CA, CN, JP, KR, US RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2236851	A1	19980402	CA 1997-2236851	19970922
CA 2236851	C	20060801		
EP 882714	A1	19981209	EP 1997-940447	19970922
EP 882714	B1	20040303		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1206407	A	19990127	CN 1997-191492	19970922
AT 260898	T	20040315	AT 1997-940447	19970922
ES 2217428	T3	20041101	ES 1997-940447	19970922
TW 517056	B	20030111	TW 1997-86113884	19970924
US 5935977	A	19990810	US 1998-68986	19980526
PRIORITY APPLN. INFO.:			JP 1996-252944 A	19960925
			WO 1997-JP3354 W	19970922

OTHER SOURCE(S): MARPAT 128:243956
GI

L7 ANSWER 29 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)



I



II

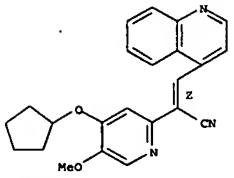
AB The title compds. I [R1 is hydrogen, alkyl, etc.; R2 is alkyl; R3 and R4 are different from each other, one of them being hydrogen and the other being cyano, etc.; R5 is aryl or heteroaryl; X is oxygen, etc.; and one of Q1, Q2 and Q3 is nitrogen and the others are CH] are prepared I are useful for the prevention and treatment of various inflammatory and autoimmune diseases. In an in vitro test for inhibition of phosphodiesterase IV, the title compound (Z)-II in vitro showed IC50 of 26 nM, vs. IC50 of 5 μM for rolipram. In an in vitro test for inhibition of phosphodiesterases III and V, (Z)-II showed IC50 values of 10 μM and > 100 μM resp.

IT 204861-79-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of vinylpyridine derivs. as phosphodiesterase IV inhibitors and TNF-α production inhibitors)

RN 204861-79-0 CA
CN 2-Pyridineacetonitrile, 4-(cyclopentyloxy)-5-methoxy-α-(4-quinolinylmethylene)-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L7 ANSWER 29 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

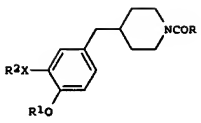
L7 ANSWER 30 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 128:230261 CA
TITLE: Preparation of N-substituted cyclic amines and their phosphodiesterase type 4 inhibitory activity
INVENTOR(S): Dhainaut, Alain; Tizot, Andre; Canet, Emmanuel; Lonchampt, Michel
PATENT ASSIGNEE(S): Adir et Compagnie, Fr.
SOURCE: Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 831090	A1	19980325	EP 1997-402175	19970919
EP 831090	B1	20000412		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2753706	A1	19980327	FR 1996-11501	19960920
FR 2753706	B1	19981030		
JP 10101645	A	19980421	JP 1997-248357	19970912
NO 9704253	A	19980323	NO 1997-4253	19970915
NO 313997	B1	20030113		
CA 2216664	A1	19980320	CA 1997-2216664	19970919
CA 2216664	C	20020521		
ZA 9708462	A	19980324	ZA 1997-8462	19970919
AU 9738362	A	19980326	AU 1997-38362	19970919
AU 718489	B2	20000413		
HU 9701561	A2	19980528	HU 1997-1561	19970919
HU 221811	B1	20030128		
BR 9704757	A	19980901	BR 1997-4757	19970919
US 5919801	A	19990706	US 1997-934409	19970919
AT 191717	T	20000415	AT 1997-402175	19970919
PT 831090	T	20000731	PT 1997-402175	19970919
ES 2147427	T3	20000901	ES 1997-402175	19970919
GR 3033509	T3	20000929	GR 2000-401200	20000525

PRIORITY APPLN. INFO.: FR 1996-11501 A 19960920

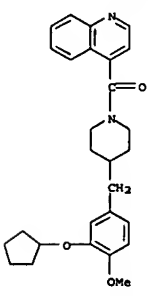
OTHER SOURCE(S): MARPAT 128:230261
GI

L7 ANSWER 30 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)



I

AB Cyclic amines I [X = CH, CH2, O; R1 = alkyl, haloalkyl; R2 = hydrocarbyl, = (un)substituted Ph, etc.; R = Ph, biphenylyl, naphthyl, aromatic groups, heteroarom. groups, etc.] were prepared and their inhibition of PDE 4 determined E.g., reaction of 4-(3-cyclopentyloxyl-4-methoxybenzyl)piperidine and 4-imidazolecarboxylic acid in presence of TBTU and HOBT gave 4-(3-cyclopentyloxyl-4-methoxybenzyl)-1-(imidazol-4-ylcarbonyl)piperidine.
IT 204700-27-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and phosphodiesterase type 4 inhibitory activity of N-substituted cyclic amines)
RN 204700-27-6 CA
CN Piperidine, 4-[[3-(cyclopentyloxy)-4-methoxyphenyl]methyl]-1-(4-quinolinylcarbonyl)- (9CI) (CA INDEX NAME)

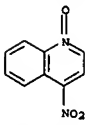


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L7 ANSWER 30 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

L7 ANSWER 31 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 127:262984 CA
TITLE: Polynucleotide-chitosan complex, an insoluble but reactive form of polynucleotide
AUTHOR(S): Hayatsu, Hikoya; Kubo, Takashi; Tanaka, Yuji; Negishi, Kazuo
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Okayama University, Okayama, 700, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1997), 45(8), 1363-1368
CODEN: CPBTAL; ISSN: 0009-2363
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
AB DNA formed an insol. complex on mixing with chitosan (poly-D-glucosamine) in solution The DNA content of the complex was about 50% and the DNA remained insol. in aqueous media of pH 2-7; e.g., on treatment of the DNA-chitosan complex with phosphate-buffered saline at pH 7 and 37°C for 26 h, the DNA released into the aqueous phase was less than 0.05%. Obviously, DNA and chitosan formed a tight complex due to ionic interactions. The DNA can be solubilized by treatment with 0.1 N NaOH. RNA and other polynucleotides formed similar insol. complexes with chitosan. The DNA attached to chitosan can be digested with a mixture of DNase I and phosphodiesterase. Cytosine residues in the DNA (denatured DNA) can be deaminated by treatment with sodium bisulfite, forming uracil DNA-chitosan. The uracil DNA-chitosan served as a substrate for uracil DNA glycosylase. Using polynucleotide-chitosan as an adsorbent, the affinities of reagents for polynucleotides can be determined directly. With this technique it was found that carcinogenic heterocyclic amines have an affinity for RNA as well as DNA. The results with homo-polyribonucleotide-chitosans as adsorbents for 4 heterocyclic amines indicated that the binding occurs in a purine nucleotide-specific manner. These results suggest that the polynucleotides in the chitosan complex are accessible to enzymes and reagents. This new derivative may be useful in chemical and biol. studies of polynucleotides and substances interacting with polynucleotides.
IT 56-57-5DP, 4-Nitroquinoline 1-oxide, polynucleotide-chitosan complexes
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of polynucleotide-chitosan complex an insol. but reactive form of polynucleotide as adsorbents for heterocyclic amines)
RN 56-57-5 CA
CN Quinoline, 4-nitro-, 1-oxide (CA INDEX NAME)

L7 ANSWER 31 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 32 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 127:79294 CA
TITLE: Biochemical and transgenic analysis of gustducin's role in bitter and sweet transduction
AUTHOR(S): Wong, G. T.; Ruiz-Avila, L.; Ming, D.; Gannon, K. S.; Margolskee, R. F.
CORPORATE SOURCE: Department of Physiology and Biophysics, The Mount Sinai School of Medicine, New York, NY, 10029, USA
SOURCE: Cold Spring Harbor Symposia on Quantitative Biology (1996), 61(Function & Dysfunction in the Nervous System), 173-184
CODEN: CSHSAZ; ISSN: 0091-7451
PUBLISHER: Cold Spring Harbor Laboratory Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB It has been proposed that gustducin and transducin function in taste transduction in a manner similar to the way in which transducin functions in phototransduction. This model predicts that gustducin and/or transducin couple seven transmembrane-helix taste receptors to TRC (taste receptor cells) -specific PDEs (cGMP phosphodiesterases) to regulate intracellular cyclic nucleotides (cNMPs). To test this model, the authors set out to biochem. identify taste-specific proteins that might couple to gustducin or transducin and function in taste transduction. In this regard, the authors partially purified a taste-specific PDE activity from bovine taste tissue that could be stimulated by transducin, transducin-derived peptides, or gustducin. The authors also identified a taste receptor activity that, in the presence of the bitter compound denatonium benzoate, activated transducin and gustducin but not Gi. These results suggest that gustducin/transducin couple taste receptor(s) to taste cell PDE. The authors further tested the hypothesis that gustducin mediates bitter transduction by generating α-gustducin-deficient transgenic mice and analyzing their taste responses. The mice are viable, healthy, and fertile, suggesting that α-gustducin is not required for normal development. As expected, behavioral tests demonstrated a difference between homozygous α-gustducin null mice and their wild type siblings in the aversion to two bitter compds. Surprisingly, the α-gustducin null mice had diminished nerve responses to both bitter and sweet compds. These data provide clear in vivo evidence that gustducin plays a key role in both bitter and sweet taste transduction.
IT 804-63-7, Quinine sulfate
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(taste; biochem. and transgenic anal. of gustducin's role in bitter and sweet transduction)
RN 804-63-7 CA
CN Cinchonan-9-ol, 6'-methoxy-, (8α,9R)-, sulfate (2:1) (CA INDEX NAME)

CM 1

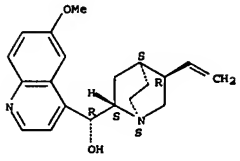
CRN 7664-93-9
CMF H2 O4 S

L7 ANSWER 32 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

CM 2

CRN 130-95-0
CMF C20 H24 N2 O2

Absolute stereochemistry.



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

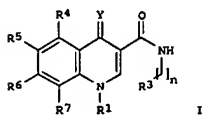
L7 ANSWER 33 OF 109 CA COPYRIGHT 2007 ACS on STN .
ACCESSION NUMBER: 126:225227 CA
TITLE: Preparation of quinolones as inhibitors of phosphodiesterase IV and/or tumor necrosis factor (TNF) activity
INVENTOR(S): Beasley, Steven Colin; Montana, John Gary; Dyke, Hazel
Joan; Haughan, Findley Alan; Runcie, Karen Ann; Manallack, David Thomas; Buckley, George Martin; Maxey, Robert James; Kendall, Hannah Jayne; Baxter, Andrew Douglas
PATENT ASSIGNEE(S): Chiroscience Limited, UK
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9704779	A1	19970213	WO 1996-GB1862	19960802
W: AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2225552	A1	19970213	CA 1996-2225552	19960802
AU 9666263	A	19970226	AU 1996-66263	19960802
AU 696390	B2	19980910		
ZA 9606599	A	19970804	ZA 1996-6599	19960802
EP 841929	A1	19980520	EP 1996-925905	19960802
EP 841929	B1	20030507		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
US 5891878	A	19990406	US 1996-691338	19960802
JP 11513021	T	19991109	JP 1997-507373	19960802
AT 239477	T	20030515	AT 1996-925905	19960802
PT 841929	T	20030930	PT 1996-925905	19960802
ES 2193252	T3	20031101	ES 1996-925905	19960802

PRIORITY APPLN. INFO.: GB 1995-15811 A 19950802
GB 1995-26377 A 19951222
GB 1996-5868 A 19960320
GB 1996-11898 A 19960607

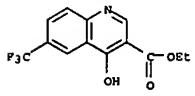
L7 ANSWER 33 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
WO 1996-GB1862 W 19960802

OTHER SOURCE(S): MARPAT 126:225227
GI



I

AB The title compds. [I; R1 = C1-6 alkyl, C1-6 alkylcycloalkyl, etc.; R3 = Ph, pyridyl, thienyl, etc.; Y = O, S; R4-R7 = H, halo, C1-6 alkoxy, etc.; n = 0-3], useful as antiasthmatics, antiallergics, antiinflammatories, antiarthritics, and antifungal agents, were prepared Thus, treatment of 1-ethyl-4-hydroxy-6-(trifluoromethyl)quinoline-3-carboxylate with Et3N and isopropenyl chloroformate in CH2Cl2 followed by addition of 4-(2-aminoethyl)pyridine afforded I [R1 = Et; R3 = 4-pyridyl; R5 = CF3, R4, R6, R7 = H; Y = O; n = 2],. Compds. I are effective at 0.01-0.5 mg/kg/day.
IT 26893-12-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of quinolones as inhibitors of phosphodiesterase IV and/or tumor necrosis factor (TNF) activity)
RN 26893-12-9 CA
CN 3-Quinolinecarboxylic acid, 4-hydroxy-6-(trifluoromethyl)-, ethyl ester (8CI, 9CI) (CA INDEX NAME)



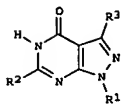
L7 ANSWER 34 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 126:117991 CA
TITLE: Preparation of 6-arylpyrazolo[3,4-d]pyrimidin-4-ones for treating heart failure and/or hypertension
INVENTOR(S): Bacon, Edward R.; Singh, Baldev
PATENT ASSIGNEE(S): Sanofi Winthrop, Inc., USA
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9628448	A1	19960919	WO 1996-US3100	19960305
W: AU, CA, CN, CZ, HU, JP, KR, MX, NO, NZ, PL, RU				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2211729	A1	19960919	CA 1996-2211729	19960305
AU 9650933	A	19961002	AU 1996-50933	19960305
AU 708809	B2	19990812		
EP 813534	A1	19971229	EP 1996-907191	19960305
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1177963	A	19980401	CN 1996-192463	19960305
HU 9801394	A2	19981028	HU 1998-1394	19960305
JP 11501926	T	19990216	JP 1996-527712	19960305
ZA 9601948	A	19960917	ZA 1996-1948	19960311
US 5736548	A	19980407	US 1997-788893	19970122
NO 9704150	A	19971107	NO 1997-4150	19970909
US 5958929	A	19990928	US 1998-16572	19980130

PRIORITY APPLN. INFO.: US 1995-402261 A 19950310
WO 1996-US3100 W 19960305
US 1997-788893 A3 19970122

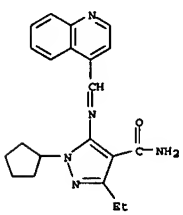
OTHER SOURCE(S): MARPAT 126:117991
GI

L7 ANSWER 34 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)



I

AB The title compds. [I; R1 = tBu, cyclopentyl; R2 = (un)substituted Ph; R3 = lower alkyl, Ph-lower alkyl] and their salts, inhibitors of c-GMP-PDE V, and useful for treating heart failure and/or hypertension, were prepared Thus, reaction of 1-cyclopentyl-3-ethyl-5-amino-1H-pyrazole-4-carboxamide with o-ethoxybenzaldehyde in the presence of MeSO3H in xylenes afforded 45% I [R1 = cyclopentyl; R2 = 2-ethoxyphenyl; R3 = Et] which showed IC50 of 5.8 nM against c-GMP-PDE V.
IT 186191-39-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 6-arylpyrazolo[3,4-d]pyrimidin-4-ones for treating heart failure and/or hypertension)
RN 186191-39-9 CA
CN 1H-Pyrazole-4-carboxamide, 1-cyclopentyl-3-ethyl-5-[(4-quinolinylmethylene)amino]- (9CI) (CA INDEX NAME)

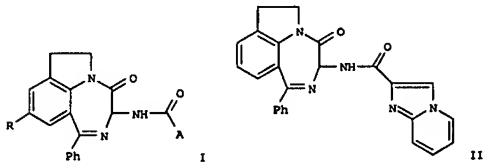


L7 ANSWER 35 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 125:114721 CA
TITLE: Diazepino-indoles as phosphodiesterase IV inhibitors.
INVENTOR(S): Pascal, Yves; Moodley, Indres; Calvet, Alain; Junien, Jean-Louis; Dahl, Svein G.
PATENT ASSIGNEE(S): Institut De Recherche Jouveinal, Fr.
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9611690	A1	19960425	WO 1995-FR1354	19951013
W: AL, AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
FR 2725719	A1	19960419	FR 1994-12282	19941014
FR 2725719	B1	19961206		
US 5852190	A	19981222	US 1995-391865	19950222
CA 2200628	A1	19960425	CA 1995-2200628	19951013
AU 9537494	A	19960506	AU 1995-37494	19951013
AU 703773	B2	19990401		
ZA 9508669	A	19970414	ZA 1995-8669	19951013
EP 785789	A1	19970730	EP 1995-935495	19951013
EP 785789	B1	20020911		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1160352	A	19970924	CN 1995-195634	19951013
CN 1097459	B	20030101		
BR 9509353	A	19971230	BR 1995-9353	19951013
HU 77411	A2	19980428	HU 1997-2065	19951013
JP 10507447	T	19980721	JP 1996-512999	19951013
NZ 294642	A	20010629	NZ 1995-294642	19951013
RU 2174517	C2	20011010	RU 1997-108048	19951013
AT 223720	T	20020915	AT 1995-935495	19951013
SK 282766	B6	20021203	SK 1997-448	19951013

L7 ANSWER 35 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
PT 785789 T 20021231 PT 1995-935495 19951013
ES 2181793 T3 20030301 ES 1995-935495 19951013
NO 9701687 A 19970613 NO 1997-1687 19970411
PRIORITY APPLN. INFO.: FR 1994-12282 A 19941014
WO 1995-FR1354 W 19951013

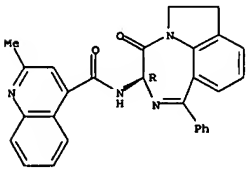
OTHER SOURCE(S): MARPAT 125:114721
GI



I II

AB Diazepinoindole derivs. I [R = H, alkyl, or alkoxy; A = mono- to trisubstituted aryl or heteroaryl] and their racemic forms, enantiomers, and pharmaceutically acceptable salts, including novel compds., are useful for treatment of disorders requiring therapy with phosphodiesterase IV (PDE IV) inhibitors. Examples include prepns. of approx. 75 I and 15 precursors, plus a general tablet formulation, and several bioassays of selected compds. For instance, amidation of 3-amino-1-phenyl-6,7-dihydro-3H-[1,4]diazepino[6,7,1-hi]indol-4-one with imidazo[1,2-a]pyridine-2-carboxylic acid, using the reagent PyBrop and Et3N in THF, gave 71% title compound II. In a test for inhibition of guinea pig tracheal PDE IV in vitro, I were approx. 2-3 times as active as rolipram, e.g., 3.7 times in the case of II. Another compound showed no oral toxicity in rats at 100 mg/kg/day, and 2 other compds. showed no emetic effects in dogs at 3 mg/kg i.v.
IT 179023-96-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of diazepinoindoles as phosphodiesterase IV inhibitors)
RN 179023-96-2 CA
CN 4-Quinolinecarboxamide, 2-methyl-N-(3,4,6,7-tetrahydro-4-oxo-1-phenylpyrrolo[3,2,1-jk][1,4]benzodiazepin-3-yl)-, (R)- (9CI) (CA INDEX NAME)

L7 ANSWER 35 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
Absolute stereochemistry.



L7 ANSWER 36 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 124:317209 CA
TITLE: Preparation of heterobicyclic derivatives as phosphodiesterase IV inhibitors and tumor necrosis factors
INVENTOR(S): Hemmi, Keiji Di; Shimazaki, Norihiko; Watanabe, Shinya; Sawada, Akihiko
PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9601825	A1	19960125	WO 1995-JP1366	19950710
W: AU, BR, CA, CN, FI, HU, JP, KR, MX, NO, NZ, RU, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2194872	A1	19960125	CA 1995-2194872	19950710
AU 9528992	A	19960209	AU 1995-28992	19950710
AU 698133	B2	19981022		
EP 770079	A1	19970502	EP 1995-924526	19950710
EP 770079	B1	20030212		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
CN 1157617	A	19970820	CN 1995-194959	19950710
CN 1051548	B	20000419		
JP 10502630	T	19980310	JP 1995-504226	19950710
HU 77353	A2	19980330	HU 1997-68	19950710
EP 920867	A1	19990609	EP 1998-120297	19950710
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
RU 2170737	C2	20010720	RU 1997-101882	19950710
JP 3206003	B2	20010904	JP 1996-504226	19950710
AT 232531	T	20030215	AT 1995-924526	19950710
ES 2187561	T3	20030616	ES 1995-924526	19950710
PT 770079	T	20030630	PT 1995-924526	19950710
TW 383307	B	20000301	TW 1995-84107168	19950711
US 6426345	B1	20020730	US 1998-793451	19980130
HK 1004483	A1	20031024	HK 1998-103728	19980501
CN 1250776	A	20000419	CN 1999-111945	19990729
US 2002107251	A1	20020808	US 2002-50855	20020118
US 6727245	B2	20040427		
PRIORITY APPLN. INFO.:			GB 1994-13975	A 19940711
			EP 1995-924526	A3 19950710

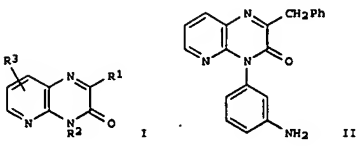
L7 ANSWER 36 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

WO 1995-JP1366 W 19950710

US 1998-793451 A1 19980130

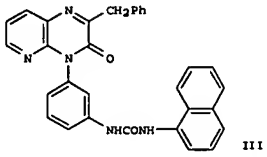
OTHER SOURCE(S): MARPAT 124:317209

GI



I

II



III

AB Heterobicyclic derivs. [I; R1 = (un)substituted aryl, aralkyl, haloalkyl, protected carboxyalkyl, acylalkyl, heterocyclyl, etc.; R2 = (un)substituted aryl, heterocyclyl; R3 = H, alkoxy, alkylthio] and their salts are prepared A mixture of amino compound II and 1-naphthyl isocyanate in dry dioxane was stirred at room temperature to give the ureido compound III, which showed IC50 of 3.1 x 10-8 M against phosphodiesterase IV and IC50 of 5.6 x 10-8 M against human mononuclear cells.

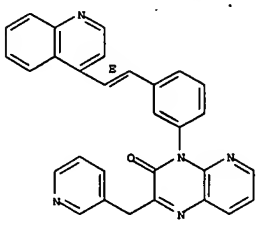
IT 176030-52-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of heterobicyclic derivs. as phosphodiesterase IV inhibitors and tumor necrosis factors.)

RN 176030-52-7 CA

CN Pyrido[2,3-b]pyrazin-3(4H)-one, 2-(3-pyridinylmethyl)-4-[3-[2-(4-quinolinyl)ethenyl]phenyl]-, (E)- (9CI) (CA INDEX NAME)

L7 ANSWER 36 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

Double bond geometry as shown.



L7 ANSWER 37 OF 109 CA COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 122:281601 CA

TITLE: Effect of anti-calmodulin drugs on the growth and sensitivity of C6 rat glioma cells to bleomycin

AUTHOR(S): Hait, William N.; Gesmonde, Joan P.; Lazo, John S.

CORPORATE SOURCE: Departments Medicine and Pharmacology, Yale University School Medicine, New Haven, CT, 06510, USA

SOURCE: Anticancer Research (1994), 14(5A), 1711-22
CODEN: ANTRD4; ISSN: 0250-7005

DOCUMENT TYPE: Journal

LANGUAGE: English

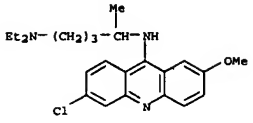
AB Antipsychotic drugs that bind to and inhibit the action of calmodulin also inhibit cellular proliferation. In addition these drugs are cytotoxic to most malignant cells and can augment the antiproliferative and cytotoxic effects of bleomycin. They are attractive candidates for use against tumors of the central nervous system since they readily pass the blood-brain barrier and accumulate in the brain. To identify more active derivs., the effects of a series of phenothiazines and a group of related compds. alone or in combination with bleomycin against rat glioblastoma cell lines were studied. C6 cells were grown for 24 h prior to a 48 h exposure to anti-psychotic drug alone or to an IC20 concentration of antipsychotic drug with bleomycin. Cells were stained with methylene blue and enumerated spectrophotometrically. Eight phenothiazines were found to augment the effect of bleomycin by ≥3-fold. These included 1-chlorpromazine (3.8x), chlorpromazine (3.2x), 3-chlorpromazine (3.0x), 4-chlorpromazine (3.4x), thiomethylpromazine (3.3x), didesmethylchlorpromazine (11x), fluphenazine (5.5x), and trifluoperazine (3.2x). Structurally similar compds. also having activity included trans-flupenthixol (6.0x), 2-chloroimipramine (6.0x), desipramine (22x), and penfluridol (24x). There was a direct correlation between the antiproliferative effect of anticalmodulin compds. and the ability of these drugs to inhibit the activation of calmodulin-sensitive phosphodiesterase. However, there was no correlation between the inhibition of calmodulin and the augmentation of the antiproliferative activity of bleomycin. Penfluridol, one of the most active compds., was chosen for further study. It increased the activity of bleomycin against L1210 leukemic cells by 90-fold and MCF-7 human breast cancer cells by 4-fold. The effect of penfluridol in combination with bleomycin was due to increased cytotoxicity as measured by clonogenic assay.

IT 83-89-6, Quinacrine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(calmodulin inhibitors effect on growth and sensitivity to bleomycin of glioma cells)

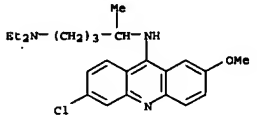
RN 83-89-6 CA

CN 1,4-Pentanediamine, N4-(6-chloro-2-methoxy-9-acridinyl)-N1,N1-diethyl- (CA INDEX NAME)

L7 ANSWER 37 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)



L7 ANSWER 38 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 122:211853 CA
TITLE: Superoxide generation by guinea pig peritoneal macrophages is inhibited by rolipram, staurosporine and mepacrine in an agonist-dependent manner
AUTHOR(S): Turner, Nicholas C.; Wood, Lorna J.
CORPORATE SOURCE: Dagenham Research Centre, Rhone-Poulenc Rorer Ltd, Dagenham/Essex, RM10 7XS, UK
SOURCE: Cellular Signalling (1994), 6(8), 923-31
CODEN: CESIEY; ISSN: 0898-6568
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Platelet-activating factor (PAF), formylmethionylleucylphenylalanine (fMPL), phorbol 12-myristate 13-acetate (PMA), and opsonized zymosan (OPZ) were potent stimuli of superoxide generation by guinea pig peritoneal macrophages. Stimulation of superoxide generation by low (≤10-8M) but not high (≥10-7M) concns. of PAF or fMLP was attenuated by the phosphodiesterase IV inhibitor rolipram (100 μM) in the presence of 1 μM PGE2. That stimulated by PMA or OPZ, however, was unaffected. At 1 μM, the protein kinase C inhibitor staurosporine was a potent inhibitor of superoxide generation stimulated by both fMLP and PAF but was without effect on that atimulated by OPZ. Superoxide generation stimulated by fMLP, PAF and OPZ was inhibited by 100 μM mepacrine (phospholipase A2 inhibitor). It is concluded that superoxide generation stimulated by the chemoattractants fMLP and PAF involves both a cAMP-regulated and cAMP-independent process. The cAMP-independent process is mediated by protein kinase C. Although protein kinase C seems a central element in the respiratory burst stimulated by fMLP, PAF and PMA, that stimulated by OPZ bypasses this mechanism. Phospholipase A2 however, represents a common stage in this signal transduction pathway.
IT 83-89-6, Mepacrine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(inhibition of superoxide formation in macrophage by rolipram, staurosporine, and mepacrine)
RN 83-89-6 CA
CN 1,4-Pentanediamine, N4-(6-chloro-2-methoxy-9-acridinyl)-N1,N1-diethyl- (CA INDEX NAME)



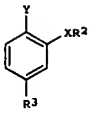
L7 ANSWER 39 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 122:31544 CA
TITLE: Tri-substituted phenyl derivatives as phosphodiesterase IV inhibitors and processes for their preparation
INVENTOR(S): Boyd, Ewan Campbell; Eaton, Michael Anthony William; Warrellow, Graham John
PATENT ASSIGNEE(S): Celltech Ltd., UK
SOURCE: PCT Int. Appl., 49 pp
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9410118	A1	19940511	WO 1993-GB2182	19931022
W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2126072	A1	19940511	CA 1993-2126072	19931022
CA 2126072	C	20041228		
AU 9453408	A	19940524	AU 1994-53408	19931022
AU 675466	B2	19970206		
EP 618889	A1	19941012	EP 1993-923600	19931022
EP 618889	B1	19981230		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 07502762	T	19950323	JP 1994-510805	19931022
JP 3806441	B2	20060809		
AT 175181	T	19990115	AT 1993-923600	19931022
ES 2126004	T3	19990316	ES 1993-923600	19931022
US 5491147	A	19960213	US 1995-387551	19950213
US 5674880	A	19971007	US 1995-465871	19950606
US 6080790	A	20000627	US 1997-862942	19970530

PRIORITY APPLN. INFO.: GB 1992-22253 A 19921023
US 1993-141873 B1 19931022
WO 1993-GB2182 W 19931022
US 1995-387551 A3 19950213

L7 ANSWER 39 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
US 1995-465871 A3 19950606

OTHER SOURCE(S): MARPAT 122:31544
GI



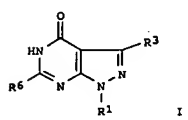
AB Compds. are described in formula (I), wherein Y is a halogen atom or a group -OR1, where R1 is an optionally substituted alkyl group; R2 is an optionally substituted cycloalkyl of cycloalkenyl group; R3 is a monocyclic or bicyclic aryl group optionally containing one or more heteroatoms selected from oxygen, nitrogen or sulfur atoms or a group -N(R4)- where R4 is a hydrogen atom or a alkyl group; X is -O, -S, or -N(R5)-, where R5 is a hydrogen atom or an alkyl group; with the proviso that when X is -O- the R3 is not a 3-cyanamino-6-pyridazinyl or a 3-chloro-6-pyridazinyl group; and the salts, solvates, hydrates and N-oxides thereof. The compds. are selective phosphodiesterase IV inhibitors and are useful for the prophylaxis or treatment of inflammatory diseases. Thus, title compds. 4-(3-cyclopentyloxy-4-methoxyphenyl)isoquinoline, 3-(3-cyclopentyloxy-4-methoxyphenyl)pyridine.HCl, and 2-cyclopentyloxy-4-(3-nitrophenyl)anisole have approx. Ki values for phosphodiesterase IV of 180, 270, and 250 nM, resp. Pharmaceutical formulations were given.
IT 611-35-8, 4-Chloroquinoline
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of phosphodiesterase IV inhibitors)
RN 611-35-8 CA
CN Quinoline, 4-chloro- (CA INDEX NAME)

L7 ANSWER 40 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 121:205376 CA
TITLE: 6-(heterocyclyl)pyrazolo[3,4-d]pyrimidin-4-one phosphodiesterase inhibitors
INVENTOR(S): Bacon, Edward R.; Singh, Baldev; Lesher, George Y.
PATENT ASSIGNEE(S): Sterling Winthrop Inc., USA
SOURCE: U.S., 39 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5294612	A	19940315	US 1992-859770	19920330
US 5541187	A	19960730	US 1993-159158	19931130

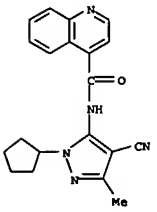
PRIORITY APPLN. INFO.: US 1992-859770 A3 19920330

OTHER SOURCE(S): CASREACT 121:205376; MARPAT 121:205376
GI



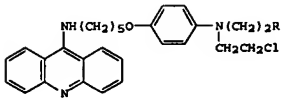
AB The title compds. [I; R1 = H, alkyl, (un)substituted C4-7 cycloalkyl, 2- or 3-tetrahydrofuranyl, 3-tetrahydrothienyl-1,1-dioxide, etc; R3 = C1-4 alkyl, Ph-substituted C1-4 alkyl, halogen, CF3, C1-4 alkylthio, CN, NO2, etc.; R6 = 9- or 10-membered bicyclic ring having C and 1-2 N atoms, which heterocycle is made up of fused 5- or 6-membered rings, etc.], useful as phosphodiesterase inhibitors for treating cardiovascular diseases such as congestive heart failure and hypertension, are prepared Thus, 1-(2-methylcyclopentyl)-3-methyl-6-(4-pyridyl)pyrazolo[3,4-d]pyrimidin-4-one (m.p. 290-291°), prepared from 2-methylcyclopentanone in 5 steps, demonstrated 59% inhibition of cyclic guanosine monophosphate-phosphodiesterase I at 1 μM.
IT 158000-96-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and phosphodiesterase inhibitory activity of)
RN 158000-96-5 CA
CN 4-Quinolinecarboxamide, N-(4-cyano-1-cyclopentyl-3-methyl-1H-pyrazol-5-yl)- (9CI) (CA INDEX NAME)

L7 ANSWER 40 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

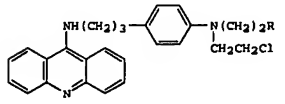


L7 ANSWER 41 OF 109 CA COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 121:195185 CA
TITLE: The use of 32P-postlabelling to detect DNA adducts produced by experimental anticancer drugs: DNA-directed nitrogen mustards
AUTHOR(S): Ferguson, Lynnette R.; Siegers, Derek; Denny, William A.; Hewer, Alan; Phillips, David
CORPORATE SOURCE: Sch. Med., Univ. Auckland, Auckland, N. Z.
SOURCE: Anti-Cancer Drug Design (1994), 9(3), 239-49
CODEN: ACDDEA; ISSN: 0266-9536
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I, R=H
II, R=Cl



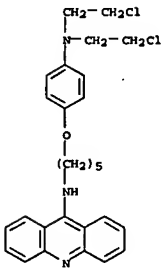
III, R=H
IV, R=Cl

AB DNA alkylation by four acridine-linked 'DNA-targeted' aniline mustard derive. has been studied by 32P-postlabeling. P1 nuclease digested proved much more efficient than butanol extraction for enhancing the yield of adducted bases for these somewhat hydrophilic compds. The yield of adducts was maximal after .apprx.4 h digestion with micrococcal nuclease/spleen phosphodiesterase and remained relatively constant after that up 24 h, suggesting that the adducts formed are stable under these conditions. There was some variation in the rates of phosphorylation of the adducts by T4 polynucleotide kinase, with optimal labeling generally occurring after 1 h. The (CH2)5O-linked half-mustard derivative I gave 5 nucleotide 3'-diphosphate adduct spots with calf thymus DNA. Two of these were identified as the adenine N1 and N3 adducts, corresponding to those previously identified as the main base adducts formed by I following acid digestion studies. The corresponding full mustard II also gave 5 adduct spots. In contrast, the (CH2)3-linked half-mustard III gave only two adduct spots, the most intense of which was identified as a guanine adduct. The corresponding full mustard IV gave three adduct spots, two of which were identified as guanine adducts. These results agree well with those obtained for the same compds. by the more tedious methods of acid

L7 ANSWER 41 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

digestion to base adducts, followed by isolation on HPLC, and show that the technique of 32P-labeling can be usefully applied to the study of alkylation of DNA by this class of 'targeted' mustards.

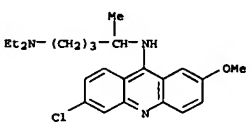
IT 125173-74-2
RL: BIOL (Biological study)
(DNA alkylation by, phosphorus-32-postlabeling for detection of)
RN 125173-74-2 CA
CN 9-Acridinamine, N-[5-[4-[bis(2-chloroethyl)amino]phenoxy]pentyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 42 OF 109 CA COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 120:239238 CA
TITLE: Photodynamic therapy mediated induction of early response genes
AUTHOR(S): Luna, Marian C.; Wong, Sam; Gomer, Charles J.
CORPORATE SOURCE: Clayton Ocular Oncol. Cent., Child. Hosp., Los Angeles, CA, 90027, USA
SOURCE: Cancer Research (1994), 54(5), 1374-80
CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Photodynamic therapy (PDT) generates reactive oxygen species which initiate the cytotoxic events of this tumor treatment. The authors demonstrate that PDT mediated oxidative stress induced a transient increase in the early response genes c-fos, c-jun, c-myc, and erg-1 in murine radiation-induced fibrosarcoma cells. Incubation of exponentially growing cells with porphyrin based photosensitizers in the dark also induced an increase in the mRNA levels of early response genes. However, the xanthine photosensitizer, rose bengal, produced increased c-fos mRNA levels only following light treatment. Nuclear runoff expts. confirmed that the induction of c-fos mRNA is controlled in part at the level of transcription. Likewise, a chloramphenicol acetyltransferase reporter construct containing the major c-fos transcriptional response elements was inducible by porphyrin and PDT. Signal transduction pathways associated with PDT mediated c-fos activation were examined by treating cells with protein kinase inhibitors. Staurosporine and 1-(5-isoquinolinesulfonyl)-2-methylpiperazine inhibited PDT mediated c-fos activation while N-(2-guanidinoethyl)-5-isoquinoline-sulfonamide had no effect. In addition, quinacrine, which can inhibit phospholipase activity, blocked PDT induced c-fos mRNA expression. These results suggest that photosensitizer mediated oxidative stress acts through protein kinase-mediated signal transduction pathway(s) to activated early response genes.

IT 83-89-6, Quinacrine
RL: BIOL (Biological study)
(photodynamic therapy induction of early response genes response to, phosphodiesterase inhibition in relation to)
RN 83-89-6 CA
CN 1,4-Pentanediamine, N4-(6-chloro-2-methoxy-9-acridinyl)-N1,N1-diethyl- (CA INDEX NAME)



L7 ANSWER 43 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 119:203427 CA
TITLE: Preparation of N-containing heterocyclic compounds as phosphodiesterase inhibitors.
INVENTOR(S): Takase, Yasutaka; Watanabe, Nobuhisa; Matsui, Makoto; Ikuta, Hironori; Kimura, Teiji; Saeki, Takao; Adachi, Hideyuki; Tokumura, Tadakazu; Mochida, Hisatoshi; et al.
PATENT ASSIGNEE(S): Eisai Co., Ltd., Japan
SOURCE: PCT Int. Appl., 362 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

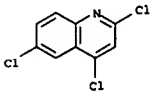
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9307124	A1	19930415	WO 1992-JP1258	19920930
W: AU, CA, FI, HU, JP, KR, NO, RU, US RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
ZA 9207465	A	19930413	ZA 1992-7465	19920929
CN 1071164	A	19930421	CN 1992-110792	19920929
AU 9226851	A	19930503	AU 1992-26851	19920930
AU 668363	B2	19960502		
EP 607439	A1	19940727	EP 1992-920913	19920930
EP 607439	B1	20020109		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, SE				
HU 70854	A2	19951128	HU 1994-910	19920930
JP 2818487	B2	19981030	JP 1993-506780	19920930
JP 2000264885	A	20000926	JP 2000-70142	19920930
JP 3477138	B2	20031210		
JP 2000273089	A	20001003	JP 2000-70138	19920930
JP 3481900	B2	20031222		
AT 211734	T	20020115	AT 1992-920913	19920930
US 5576322	A	19961119	US 1994-196110	19940218
FI 9401417	A	19940325	FI 1994-1417	19940325
NO 9401101	A	19940530	NO 1994-1101	19940325
US 5693652	A	19971202	US 1995-408867	19950323
JP 10095776	A	19980414	JP 1997-195696	19970722
JP 3081172	B2	20000828		
US 5801180	A	19980901	US 1997-904260	19970731

L7 ANSWER 43 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

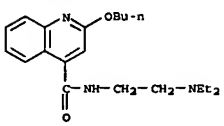
JP 2000264877	A	20000926	JP 2000-70130	20000314
JP 3671131	B2	20050713		

PRIORITY APPLN. INFO.:
JP 1991-320853 A 19910930
JP 1993-506780 A3 19920930
JP 1997-195696 A3 19920930
WO 1992-JP1258 A 19920930
US 1994-196110 A3 19940218
US 1995-408867 A3 19950323

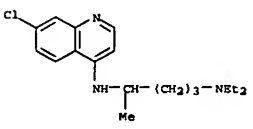
OTHER SOURCE(S): MARPAT 119:203427
GI For diagram(s), see printed CA Issue.
AB The title compds. [I; R1-R4 = H, halo, (halo)alkyl, (un)substituted cycloalkyl, alkoxy, etc.; R5 = H, OH, hydrazino, alkyl, (un)substituted cycloalkyl, alkoxy, etc.; R6 = H, halo, OH, cyano, alkyl, alkoxy, alkenyl, etc.; A = benzene ring, pyridine ring, cyclohexane ring; B = pyridine ring, pyrimidine ring, imidazole ring], useful for treatment of ischemia, heart attack, hypertension, cardiac insufficiency, and asthma (no data), are prepared E.g., a mixture of 4-hydroxy-6-carbamoylquinazoline, SOCl2, and POCl3 was reflexed for 20 h to give 4-chloro-6-cyanoquinazoline. 4-(4-Methoxybenzyl)amino-6,7,8-trimethoxyquinazoline (also prepared) had an IC50 of 1.0 μM against phosphodiesterase in an in vitro study.
IT 1677-50-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for phosphodiesterase inhibitors)
RN 1677-50-5 CA
CN Quinoline, 2,4,6-trichloro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



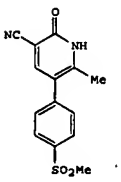
L7 ANSWER 44 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 119:3376 CA
TITLE: Purification and properties of calmodulin from Phymatotrichum omnivorum
AUTHOR(S): Sambandam, T.; Gunasekaran, M.
CORPORATE SOURCE: Dep. Biol., Fisk Univ., Nashville, TN, 37208, USA
SOURCE: Microbios (1993), 73(294), 61-74
CODEN: MCBIA7; ISSN: 0026-2633
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Mycelia of Phymatotrichum omnivorum obtained at 10 day intervals during 10 to 50 days of growth were used for isolating calmodulin, and studying its effect on glycogen synthase, phosphorylase, phosphorylase kinase, cAMP phosphodiesterase (PDE) and Ca++ATPase. Glycogen synthase was inhibited until the 30th day by calmodulin, whereas calmodulin obtained from the 40th day stimulated glycogen synthase activity and the 50th day sample had no effect. Both cAMP phosphodiesterase and Ca++ATPase of P. omnivorum were stimulated by the resp. calmodulin. Mol. weight of the purified fungal calmodulin was approx. 18 kD as revealed by SDS gel electrophoresis. Trifluoperazine, dibucaine and lidocaine inhibited calmodulin activity and calmodulin activation of PDE, resp.
IT 85-79-0, Dibucaine
RL: BIOL (Biological study)
(calmodulin activation of cAMP phosphodiesterase of Phymatotrichum omnivorum response to)
RN 85-79-0 CA
CN 4-Quinolinecarboxamide, 2-butoxy-N-[2-(diethylamino)ethyl]- (CA INDEX NAME)



L7 ANSWER 45 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 118:100050 CA
TITLE: Interferon-γ induced lethality in the late phase of Plasmodium vinckei malaria despite effective parasite clearance by chloroquine
AUTHOR(S): Kremsner, Peter G.; Neifer, Stefan; Chaves, Mair E.; Rudolph, Roland; Bienzle, Ulrich
CORPORATE SOURCE: Landesinst. Tropenmed. Berlin, Berlin, Germany
SOURCE: European Journal of Immunology (1992), 22(11), 2873-8
CODEN: EJIMAF; ISSN: 0014-2980
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A combination therapy was tested consisting of chloroquine and interferon-γ (IFN-γ) in the late phase of blood-stage P. vinckei malaria in BALB/c mice. When mice were treated with 3 times 300 μg chloroquine at 24-h intervals starting at a parasitemia of 30-50%, only 5 of 14 mice (36%) died 2-4 days after initiation of therapy. However, when infected mice received chloroquine plus 1 μg IFN-γ at the same time, 14 of 18 mice (78%) died 0.5-3 days after start of therapy despite clearance of parasitemia. The histopathol. from mice dying after combination therapy revealed interstitial leukocyte infiltration of lung tissue, severe liver cell necrosis, and kidney tubular necrosis. Pretreatment of P. vinckei-infected mice with pentoxifylline, a phosphodiesterase inhibitor, led to a decrease of IFN-γ-induced lethality. In contrast, pretreatment with neutralizing antibodies to tumor necrosis factor or with L-N-monomethyl arginine, the latter an inhibitor of the nitric oxide synthase, significantly increased lethality.
IT 54-05-7, Chloroquine
RL: BIOL (Biological study)
(Plasmodium vinckei clearance in late phase of malaria by, interferon-γ detrimental effects on)
RN 54-05-7 CA
CN 1,4-Pentanediamine, N4-(7-chloro-4-quinolinyl)-N1,N1-diethyl- (CA INDEX NAME)



L7 ANSWER 46 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 117:251207 CA
TITLE: New cardiotonic agents related to amrinone: synthesis of 1,2-dihydro-5-arylpyridin-2-ones
AUTHOR(S): Gomez-Parra, V.; Del Carmen Gomez, M.; Sanchez, Felix; Stefani, V.
CORPORATE SOURCE: Inst. Quim. Org., Madrid, E-28006, Spain
SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1992), 325(8), 483-90
CODEN: ARPMAS; ISSN: 0365-6233
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 117:251207
GI



I

AB For development of new cardiotonic agents a series of 5-aryl-3,4-dihydropyridin-2(1H)-ones, related to amrinone were prepared from methylquinolines, 2-arylacetic acid or 3-arylethanones by direct aminomethylenation and subsequent condensation-cyclization with malonamide and cyanacetamide in classic basic media or phase-transfer catalysis, in good to excellent yields. Preliminary pharmacol. assays showed that these compds., especially 6-methyl-5-[(4-methylsulfonyl)phenyl]-2-oxo-1,2-dihydropyridine-3-carbonitrile (I) has a remarkable cardiotonic effect and present a selective inhibition of PDE-III/PDE-I isolated from cat heart.
IT 491-35-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(Vilsmeier reaction of)
RN 491-35-0 CA
CN Quinoline, 4-methyl- (CA INDEX NAME)

L7 ANSWER 46 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

L7 ANSWER 47 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 117:83459 CA
TITLE: Pseudonucleosides and pseudonucleotides and their polymers for use in therapy and diagnosis
INVENTOR(S): Lin, Kuei Ying; Matteucci, Mark
PATENT ASSIGNEE(S): Gilead Sciences, Inc., USA
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9113080	A1	19910905	WO 1991-US1141	19910220
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W: AU, CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
AU 9175799	A	19910918	AU 1991-75799	19910220
<--				
US 5414077	A	19950509	US 1994-237233	19940502
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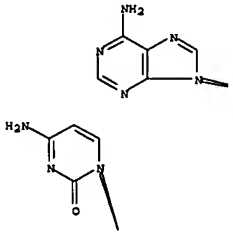
PRIORITY APPLN. INFO.:			US 1990-482943 A	19900220
			US 1990-594147 A	19901009
			WO 1991-US1141 A	19910220

OTHER SOURCE(S): MARPAT 117:83459
AB Pseudonucleosides or pseudonucleotides, useful to construct DNA or RNA oligomers which can be employed in therapy, e.g. through antisense or other mechanisms, or which can be used in diagnosis through binding to specific target oligonucleotides, comprise XYZ(F)YX (X = H, PO3-2, activated nucleotide synthesis coupling moiety, protecting group, nucleoside, nucleotide, nucleotide sequence, solid support; Y = O, S; F = functional group for linking an addnl. moiety; Z = organic backbone which is achiral or is a single enantiomer of a chiral compound; with provisions). Because the pseudonucleotide provides a functional group for the conjugation of any desired substituent, the resulting oligomers can be modified as desired to exhibit such helpful properties as resistance to nucleases, enhanced binding to target sequences, enhanced capability to permeate cells, and regulation of the rate of renal clearance. The fluorescent oligonucleotide 5'-cholesteryl-TCC AGT GAT TTT TTT CTC CAT-DHED-rhodamine-3' (DHED = dihydroxyethylethylenediamine; preparation given) was added to DMEM medium containing 10% heat-inactivated fetal calf serum. Mouse L cells were incubated in the medium and then were washed to remove extracellular oligonucleotide. Fluorescence intensities indicated that >60% of the oligonucleotide remained intact after 3 days in the cells, showing that the 3' OH adduct rendered it stable to nuclease activity.
IT 141287-87-8
RL: PRP (Properties)
(nuclease resistance of)
RN 141287-87-8 CA
CN 3'-Thymidylic acid, thymidylyl-(3'→5')-thymidylyl-(3'→5')-thymidylyl-(3'→5')-thymidylyl-(3'→5')-thymidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-thymidylyl-(3'→5')-

L7 ANSWER 47 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)
2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxyadenylyl-(3'→5')-, 3'-[2-[[2-[[6-chloro-2-methoxy-9-acridinyl]amino]ethyl](2-hydroxyethyl)amino]ethyl] ester (9CI) (CA INDEX NAME)

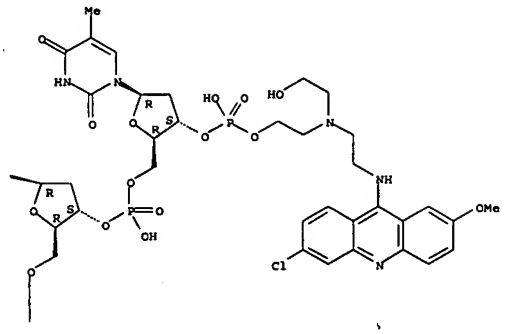
Absolute stereochemistry.

PAGE 1-B



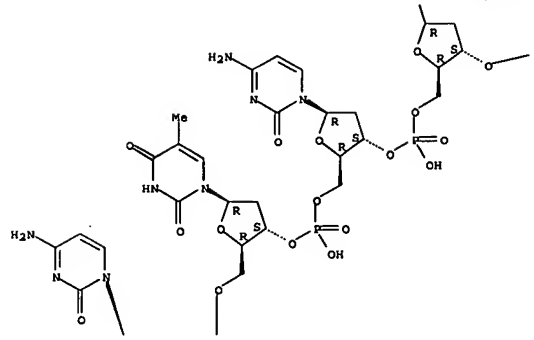
L7 ANSWER 47 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

PAGE 1-C



L7 ANSWER 47 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

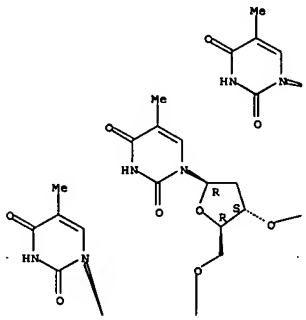
PAGE 2-B



PAGE 2-C

L7 ANSWER 47 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

PAGE 3-A



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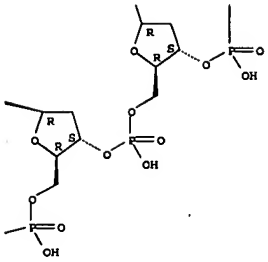
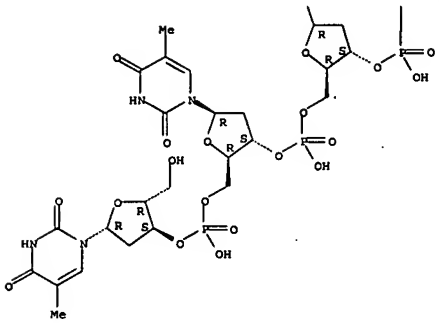
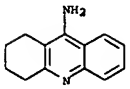


L7 ANSWER 47 OF 109 CA COPYRIGHT 2007 ACS on STN (Continued)

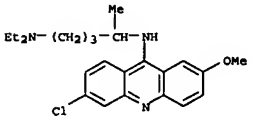
PAGE 4-A



L7 ANSWER 48 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 116:614 CA
TITLE: Acute effects of tetrahydroaminoacridine on β-adrenoceptor-linked cyclic AMP accumulation in brain of young and middle-aged rats
AUTHOR(S): Diersen, Mara; Marmol, Frederic; Vivas, Nuria M.; Clos, M. Victoria; Gascon, Silvia; Badia, Albert
CORPORATE SOURCE: Dep. Farmacol. Psiquiatria, Univ. Auton. Barcelona, Bellaterra, 08193, Spain
SOURCE: Neuroscience Letters (1991), 132(1), 51-4
CODEN: NELED5; ISSN: 0304-3940
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of acute treatment with 1,2,3,4-tetrahydro-9-aminoacridine (THA), a 4-aminopyridine derivative clin. effective in Alzheimer's disease, on β-adrenoceptor-linked cAMP accumulation have been investigated in cortical and hippocampal structures of young and middle-aged rats. In a first series of expts., pretreatment of 2.5 mg/kg THA decreased basal cAMP accumulation. When a phosphodiesterase inhibitor was added to the preparation, THA again decreased cAMP levels in young rats, but failed to modify cAMP accumulation in middle-aged animals. Finally, in isoprenaline-stimulated conditions, acute treatment with tacrine was able to diminish cAMP accumulation in every group of rats. It is suggested that the neurochem. action of THA in mammalian brain is more complex than earlier anticipated and may involve an action on β-adrenoceptors.
IT 321-64-2, 1,2,3,4-Tetrahydro-9-aminoacridine
RL: BIOL (Biological study)
(β-adrenoceptor-linked cAMP transport response to, in brain, senescence in relation to)
RN 321-64-2 CA
CN 9-Acridinamine, 1,2,3,4-tetrahydro- (CA INDEX NAME)

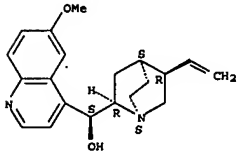


L7 ANSWER 49 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 115:22142 CA
TITLE: Interactions of calmodulin antagonists with calcium antagonists binding sites
AUTHOR(S): Schaeffer, Paul; Lugnier, Claire; Stoclet, Jean Claude
CORPORATE SOURCE: Fac. Pharm., Univ. Louis Pasteur, Illkirch, F-67401, Fr.
SOURCE: European Journal of Pharmacology, Molecular Pharmacology Section (1991), 206(4), 325-32
CODEN: EJPPET; ISSN: 0922-4106
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Calmodulin antagonists have calcium entry-blocking properties. In order to quant. investigate the interactions of these drugs with calcium channels, their effect on [3H]nitrendipine and [3H]d-cis-diltiazem binding to rat cerebral cortex membrane preparation was compared to their inhibitory effect on the activation of cyclic nucleotide phosphodiesterase by calmodulin. The potency of most antagonists to inhibit [3H]nitrendipine binding was correlated with their calmodulin inhibitory potency. Bepridil (K0.5 = 280 nM), chlorpromazine (K0.5 = 3 μM) and propranolol (K0.5 = 14 μM) were much more active on [3H]d-cis-diltiazem binding than on either [3H]nitrendipine binding or calmodulin, suggesting that these compds. bind to higher affinity sites on the calcium antagonist target protein. The potencies of these compds. to compete with [3H]d-cis-diltiazem and to inhibit calcium-induced contractions in depolarized smooth muscle were correlated. Low concns. of the hydrophobic drugs, which have calcium and calmodulin antagonistic properties, may inhibit smooth muscle contraction through calcium entry blockade and not by calmodulin antagonism.
IT 83-89-6, Quinacrine
RL: BIOL (Biological study)
(brain calcium channels binding of, calmodulin and calcium blocker interaction in)
RN 83-89-6 CA
CN 1,4-Pentanediamine, N4-(6-chloro-2-methoxy-9-acridinyl)-N1,N1-diethyl- (CA INDEX NAME)



L7 ANSWER 50 OF 109 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 114:220765 CA
TITLE: Search for cyclic-AMP phosphodiesterase inhibitors by means of substructural and topological descriptors
AUTHOR(S): Vatolkina, O. E.; Kabankin, A. S.; Landau, M. A.; Libinzon, R. E.
CORPORATE SOURCE: Inst. Khim. Fiz., Moscow, USSR
SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1991), 25(2), 10-13
CODEN: KHFZAN; ISSN: 0023-1134
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB A relationship was examined between the chemical structure of 76 drugs and the inhibition of cAMP phosphodiesterase activity. The D2 values of the Machalonobis statistics and error function were used to compare the informative value of the calculated mol. descriptors in recognizing the inhibitory capacity. The descriptors were studied by a step-by-step linear discriminant anal. Three- and four-parameter discriminant functions were derived, which correctly classified 92% of the compds. from the initial sample. The studies provided empirical rules predicting the capacity of novel compds. to inhibit cAMP phosphodiesterase activity.
IT 56-54-2, Quinidine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(cAMP phosphodiesterase inhibition by, structure in relation to)
RN 56-54-2 CA
CN Cinchonan-9-ol, 6'-methoxy-, (9S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



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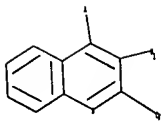

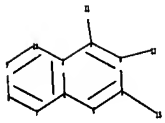

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ring/chain bonds :
4-13 5-15
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normalized bonds :
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G1:C,H,S,N

G2:X,C,H,O

Match level :